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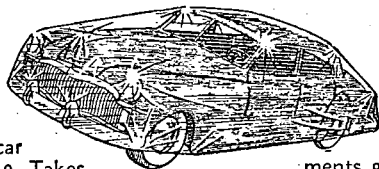
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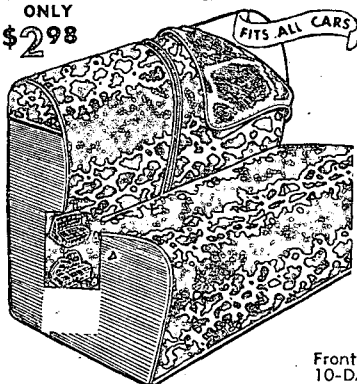
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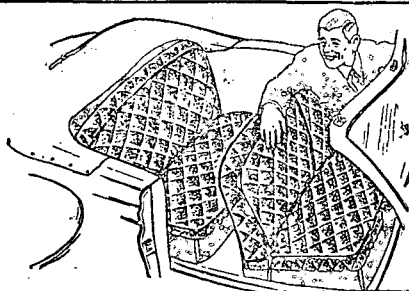
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EMPIRE OF WOMEN (Novel—30,000) by John Fletcher..... 3

Illustrated by Leo Ramon Summers and Ed Valigursky

When the empire of Myrmi-Atla beat back all attacks, there was only one weapon that might overthrow that world of women—a smooth-talking, hard-loving man!

COME TO VENUS — AND DIE! (Novelette—16,000) by F. Willard Grey..... 54

Illustrated by Lawrence

All the girl wanted was to hire Greg to fly into the Venusian jungle and rescue her father. But for some strange reason a lot of people wanted him left there!

THE WORLD OF WHISPERING WINGS (Short novel—20,000) .. by Rog Phillips..... 82

Illustrated by Virgil Finlay

After three thousand years, they were returning to Earth. Surely, after all that time it would be Utopia, a land of milk and honey. Instead, they found—

MONKEY IN THE ICE BOX (Short—9,000) by Gerald Vance..... 114

Illustrated by Tom Beecham

With a chorus cutie, a guy with a gun and a shipload of pirates ready to kill them, Joe and Scorp lost all hope—until they found a nice frozen secret weapon

MASTER OF THE UNIVERSE — II (Short—5,000) Author Unknown..... 131

Illustrated by Ed Valigursky

Have you ever wondered what our world, our solar system, even our galaxy will be like during the next, say, five hundred years? This article will tell you!

Front cover painting by Lawrence, suggested by

a scene from the story "Empire of Women"

.....

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THE OBSERVATORY

by the Editor

HAVE you got that thirty-five cents safely tucked away? You know, the one you put aside last month when we told you that March is the month the first issue of FANTASTIC goes on sale. We don't mean *Fantastic Adventures*; that'll be out too, of course (and you won't want to miss it—not when there's a novel in it by Lee Francis, his first in over two years!).

WHAT we do mean is that we've just finished reading over the proof pages of the new FANTASTIC—and what we at first had thought were good stories turned out to be more than good—they're terrific! How could they be anything else with such authors behind them as H.L. Gold, Ray Bradbury, Isaac Asimov, Walter Miller, Raymond Chandler—and on and on?

AS FOR the covers...words fail us. Front and back, they've won long whistles of amazement from even so jaded an audience as the boys who printed them—boys who've seen so many striking covers in their day that almost nothing can raise their eyebrows! (By the way, did we tell you that there's not a line of advertising in the magazine?)

THIS is the magazine in the science and fantasy field which your editor wanted to bring out ever since he returned to the editing business over two years ago. Last year we thought the time had come; but one thing and another got in the way and forced its postponement. Now it's here—and we're glad we waited, since the kind of stories being written then can't compare in quality to those available now.

NOW let's talk about something else. A few issues back (the February *Amazing Stories* to be exact), we used this column to say that life on other planets was just about impossible. Come to think of it, we didn't say "just about"—we said it *was* impossible! To justify our conclusion, we quoted scientists and astronomers—and ended up by saying it really didn't make a lot of difference, since the story is the thing in science fiction—not how plausible, but how entertaining. That's what we said.

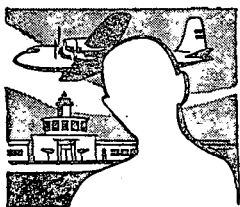
AND that's when the roof fell in! In all our years (ten) of editing magazines, we've never seen anything like the avalanche of mail that poured down on us. Not letters saying "You're so right, Mr. B." (although there was a *small* percentage of those). No sir; these were letters that started out something like "Dear sir, you cur!" and went on from there. The more gentle ones didn't *say* we had no business being an editor of science-fiction magazines; but they did say we had a great future as a whiffle-tree salesman. As for the not-so-gentle readers: we won't use the letters *they* wrote. The Post Office Department would never forgive us!

NOBODY cancelled his subscription; nobody said he'd never buy another issue of the magazine. Nor were all the letters—or even most of them—from the so-called professional "fan". There were scorched trails of ink from school teachers, taxi drivers, college students, bank tellers, soldiers, and dentists. Nobody exactly wanted the editor's head, but more than a couple cast a fowd eye at the point of his chin!

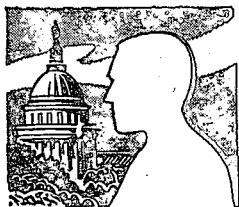
WHEN the flood stopped long enough for us to do a bit of research on it, we learned something: had we used the phrase "life *as we know it*", we could have avoided most of the thunder and lightning. To this we have no defense. It seems ridiculous to us that we *didn't* say it. For certainly there can be life as we do *not* know it on any or all the planets in every solar system. Certainly it would be a shameful waste of material if in all the infinite reaches of the Universe, Earth alone were the only bit of gravel that supported any *kind* of life. And, since in infinity all things must be duplicated, we'll agree that even life *as we know it* quite probably exists elsewhere in the cosmos. But not within any distance mankind is likely to reach before our sun grows cold and Earth itself is a frozen, lifeless waste.

ANYWAY, we got told! And we promise we won't make any more wild statements—not for a while anyway.... —HB

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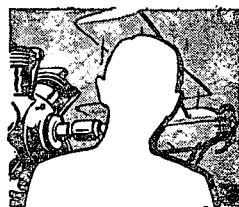
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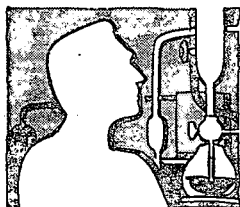
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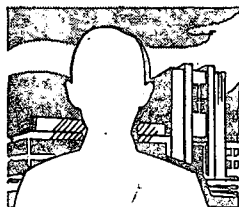
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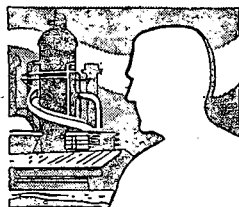
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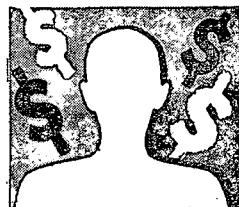
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A shadow moved behind a pillar, and Cap's flash sent a quick beam of light toward it



EMPIRE OF WOMEN

By John Fletcher

**Nowhere in all space was there a man
who could battle against Cap Alain.
Women, however, use different arms!**

THE WARSPEAR was loafing along under a half G acceleration somewhere between Denebola and Konapar, when the news tape started clicking out the story of the space battle that had served as a "declaration" of war between Konapar and Phira. The captain's hands reached for the controls, rang the acceleration alarm, and changed course. He upped the speed to a good ten G's.

Nobody takes that kind of acceleration if they can avoid it unless, like the Cap, they were raised on a two-G planet. Or unless there was a terrific reason which made it imperative, such as the reason in the Cap's

mind as his eyes glittered in retrospection over the war news and what it implied.

The *Warspear* had to pass Phira within a half-hour's distance. But the Cap swung closer to the gigantic gray-green globe now, turning on the vari-wave detectors to pick up any vibration that might be disturbing the ether around Phira. There was a scramble of sound, but it was all in code and nothing he could make sense of, though he tried.

A few moments after the war news had come through on the tape, the radar screen picked up a ship, dead ahead, making for the atmosphere of Phira under full rocket blast. The Cap signaled her for identification. That he had no business asking made no difference to him. Apparently that fact was known by the strange ship, for she refused to answer. The Cap leaned to his intercom.

"Mister DuChaile, put a torpedo across her bows," he said calmly.

Chan DuChaile was the first mate of the *Warspear*, and he deserved his post. Under his direction the torpedo crew put a guided missile across the stranger's bow so close the Cap couldn't see space between the fiery wake and the hull. The stranger's captain couldn't see it either, apparently, for he flashed a surrender signal immediately; not too surprisingly, because the *Warspear* could scare almost anything in space into a collapse. Especially merchant-men, which this ship was, and which the *Warspear* was built for. In plain words, the *Warspear* was a pirate.

When the prize crew boarded the captive, they found to their delight that they had indeed captured a prize. She was loaded to the bulkheads with explosives, and a hundred tons of fission-grenades, designed to be thrown by repulse rays in hand weapons.

These latter were outlawed wherever the Terran empire held sway. It was a terrible weapon to place in a common soldier's hands, and the Cap looked thoughtful when the prize crew reported the cargo to him. If the Phirans had much of that type of weapon, they must mean business, outlawed business they didn't intend to allow any Terran to rule, or any code of decency to forestall. Alid, on Phira, was proving herself to be the barbarian nation she was!

For an instant the Cap chuckled. If he'd touched the other ship with just one ray, that cargo would have sent both ships to glory.

But he stopped chuckling when he learned of the forty-odd slave girls bound for the Temple of the Matriarchs in Alid. They had been branded already with the blue heiroglyph of Myrmi-Atla, which meant a strictly manless future for them, were they delivered to the infamous temple.

The Cap went over to the prize and looked at them. They were just kids, only beginning to blossom into maidenhood. Obviously the crew wanted to take them aboard, but the Cap knew better than that. He ordered them sent to the hideaway on the Black Moon.

But for the first time in his career, one of his orders was obeyed with questioning glances and a few mumbles of "it ain't fair"...for the Cap bent too long a glance on a sprightly little being he called "Elvir" because she was so small and quick. An "elvir" is a baby eel. She was a pert little blonde, not at all like an eel except for her smooth and quick movements, but the name seemed to fit all the same. Perhaps it was the way she accepted it, and the way she wriggled into the Cap's heart. Anyway, Elvir came aboard the *Warspear*, and jealousy shone out of

the eyes of many of her crew. But it was a good kind of jealousy, for Elvir was only ten.

THE PRIZE crew boarded the freighter and headed her for the hideaway on the rock named the Black Moon...the Cap could always get quick cash out of a cargo of explosives. Then the *Warspear* resumed course for Konapar.

Before long, Elvir's pert beauty and high sense of humor had endeared her to everyone. She was full of questions, and she carried a potent load of sunbeams in her laugh and in her child's way of playing. The crew got a boost out of her, and she was too young to have to worry about any fights starting over her...or so the captain thought. Pirates his men might be, but there's a soft spot in the core of every real man, and the hardy fighters aboard the *Warspear* were no exception.

Elvir had never been to space before she had been placed aboard the freighter, and she was determined to learn all about it, which was funny because it was so impossible.

"Where are we, Captain Alain?" she'd ask, and he'd take her on his knee and trace out their course through the stars on the chart with one broad, scarred finger, and tell her a whopping big lie about the people of each planet along the course. She'd swallow it all and come back for more.

"What is the Empire of Terra? Who are the pirates you have to fight for Terra?" The Cap had reversed the truth and told her the *Warspear* was engaged in exterminating pirates. He'd patiently explain how huge the Terran empire was, taking in a good portion of the galaxy, and how numberless the independent worlds where pirates could

hang out masquerading as honest merchant ships. Little Elvir drank it all in, her eyes sparkling as she absorbed the star charts he handed her, and you'd swear she understood it all as well as he before a week was out.

"Will I meet some pirates?" she'd ask...and the Cap would look at Chan DuChaile and wink.

"I hope not," he'd say. "Pirates are terrible bad men!"

"What do pirates look like?" she'd ask, and he'd have them with long whiskers and blasters as big as beer kegs and bandy-legged and cross-eyed.

Chan and the other officers would laugh, but the fact was they themselves were about as war-scarred a bunch of mercenaries as ever looted a city or sacked a ship; and just about as deadly as any story-time pirate could hope to be.

But Captain Gan Alain had contacts, a reputation for straight dealing, and had turned in plenty of honest jobs convoying trading ships that had had sense enough to hire him. The rims of the Terran Empire were rough and tough, and most everything went. But most of the men on the *Warspear* knew the value of a good record on the official books, and especially did Gan Alain know this. He'd done convoying long enough for the traders to know he never double-crossed an employer who paid his price.

There were others in the business, however, like Tiger Phelan, whose record included a half-dozen convoys that never reached port, and a dozen lame excuses by the Tiger as to where other cargoes had disappeared to—from his own holds. Men like the Tiger forced action against themselves by messing up the record. Out of a hundred trips, it was natural to lose one or two convoys. But it would be

a very dumb and blind trader who hired the Tiger to take him across the void from Dires to Delphon.

On the record, the Cap's nose was clean. He could cradle at almost any civilized port without a murmur from officialdom. So far, that is...

ELVIR was either well-developed for her age, or had adult instincts, for she fell for the captain. There was some excuse, for he *was* the kind most women make fools of themselves over. Full of vitality, ruddy-cheeked, curly-haired, he was taller and broader than most men of Earth stock. He'd been raised on a heavy planet, though he never talked much about exactly where it had been, and what kind of a home he'd had. On the *Warspear* everyone had secrets and sore spots—that's why they were there.

Captain Alain he was called, formally. In space some were allowed to call him "Cap", and a few called him Gan, off duty. He was a mild enough man, ordinarily; but so powerful that the mildness was deceptive. He didn't have to shout or bluster or throw his weight around to get obedience. His men had seen him break a man's back by hitting him in the belly in a fight, and they didn't give him any arguments. Big he was, with his mane of red-gold hair and beard making him look even bigger. Nobody pushed the Cap around. He could let out a bel-low that made the plates in the hull rattle, but he seldom did. It wasn't necessary. Men leaped to obey his quietest whisper.

He was no ladies' man, but when there were ladies present, they did their best to make one out of him. Now little Elvir was on the same course, but somehow with her it was comical, she was so small. In spite of his attitude toward females, the

Cap made a fuss over her; and so did all the rest, but without the reaction she gave the Cap.

IT WAS mid-course between Phira and Konapar that the radar beams began to have grasshoppers. The telescope finally gave the answer: they were heading smack into a whopping big fleet, as DuChaile put it.

The Cap began to decelerate, then turned the controls over to Chan. Most of the crew guessed what was ahead, but if they'd suspected their captain was planning on plunging right into the middle of the Konapar war fleet, they'd have worried a lot more than they did.

Soon the fleet became visible, strung out in a series of V's too numerous to count. There were hundreds of them and, as they neared, the televisor began to bellow out questions at the *Warspear*. When the crew heard their captain's answer, they suddenly had reason to worry, and most of the officers felt sure this was IT—the lugubrious finish of the *Warspear's* career. But every man stood to his post, silent and grimly ready.

"Tell your commander this ship is the *Warspear*, heavy-cruiser class; with five-score seasoned fighting men, reporting for action against the Phiran tyranny."

Chan DuChaile, listening, had never heard the government of the Matriarchs called a tyranny before, and he didn't like the idea of fighting against women; but he knew Gan Alain well enough to realize there were wits at work, so he listened without too much amaze.

After a few seconds, the receiving screen came to life. Mentally, Chan analyzed the scene in his own peculiar way: A big, black-bearded mo-

gul in a monkey-suit trimmed with gold braid, garnished with medals, draped with golden spaghetti and epaulettes. Chan recognized him, after a snort of disdain, as the Regent of Konapar. He'd seen his picture in a dozen bars in ports across the Dires sun-cluster.

Yet, after a good look at him, Chan wouldn't have given more than two brass buttons for the young prince's chances of ever taking over the rule of Konapar from this fellow. He was neither bad looking nor particularly villainish in appearance; it was just that he was a man who got what he wanted, and who wanted everything. Too ambitious, Chan classified him.

He was big-necked, big-chested, black-haired, a very handsome man. His cheeks were a little too full and flushed with good living. His eyes, the deep sloe-black of most Konoparians, were just a little sleepy-lidded, with a gleam of temper veiled behind. His complexion was clear and his voice was hearty and pleasant. He was a man's man who knew how to be liked by those under him. Chan liked him, and Chan wouldn't have trusted him as far as he could throw the *Warspear* off the surface of Jupiter.

Captain Alain, also observing the lusty ambition in the man, saw that he was the kind who never grabs with one hand, but uses both.

"What are your arms, Captain?" the Konoparian ruler was saying, and those sleepy eyes were registering caution at sight of a man as powerful and as obviously experienced in space war as the Cap.

Gan Alain grinned, a kind of respectful, now-you're-joking grin, and said: "Ah-ahh! We mercenaries have our little secrets. We have to be a wee bit ahead of the average military armament to stay alive, you know. I'll

guarantee to best any ship my tonnage, and most of them twice that, if necessary."

Chan DuChaile snickered at the Cap's effrontery, here in the midst of a war-fleet of total strangers, and refraining from telling his armament or its range.

The Regent colored the slightest bit, but his face didn't move a muscle. "Now, by Satan, Captain, how can I direct your ship in battle if I don't know your range?"

"It won't be necessary to direct my ship in battle, Your Highness," answered the captain. "Employers invariably put mercenaries in the fore of every battle, since they do not have to pay dead men. My duties will consist only of guarding your person and your ship from surprise attack, let us say, by ambitious parties unknown who would stand to benefit by your demise. Agreed?"

FOR A LONG minute the Cap's eyes held the Regent's, eye to eye in a subtle exchange, a kind of measuring of each other. The Regent, whose name was Gunnar Tor Branthak, pulled his beard thoughtfully, and his color went back to its normal ruddy hue.

"I do not expect any attacks by unnamed parties, but I fully understand your meaning. Those are your terms, and I accept them. Your pay will be regular battle pay equal to that received by my native supporters of equal rank. Naturally you will receive a share in the loot, which should amount to a fortune. But, you are aware I am not contracting to protect *you* against any resentment your lack of enterprise under fire might arouse?"

It was Captain Alain's turn to flush with repressed anger, and his big fist came up in a gesture that

said more than any words. Just the same, he supplied the words to go with the fist. "If any man finds cause to reproach the *Warspear* for cowardly actions during battle, I will claim no share of any prize won by the forces of Konapar. The name of Captain Gan Alain should be warranty enough of the value of this ship to your project!"

"Agreed then!" the Regent snapped. "The *Warspear* will fight under my personal direction, and take orders from no other officers whatever." The 'visor went blank and Gan Alain turned and gave Chan a wink.

Chan grinned inwardly. What had happened was an example of the cool wits of his commander. The *Warspear* had jetted into an imperial warfleet staffed with jealous nobles and officers of royal blood, and contracted to guard the Regent from treachery from any one of them. Chan would have bet that there were a dozen sub-potentates who were at this moment boiling violently around the collar and unable to do anything about it but sizzle. Who but the Cap would realize and take advantage of the fact that every ruler has his enemies, and that they would be looking for an opportunity such as might occur in battle to blast the Regent's ship by "mistake".

Gan Alain had learned by sad experience that a mercenary takes an unequal chance in battle beside allies, many of whom are relatives. They will send a hireling to his doom every time in preference to a brother or a cousin or a rich neighbor. The Tor's deal gave him a ship which could have no ulterior motive, as the *Warspear's* crew stood to gain nothing unless the Tor remained alive.

ALL THIS time little Elvir sat obediently in the control cabin,

perched on top of the file cabinet, her knees holding the chart book where the course to Konapar was scrawled out in red ink. She closed the big folder of charts and pushed it into the cabinet between her knees without getting down. Her eyes were half-shut, thoughtful, and the mate figured she was thinking about the women who ruled Phila and what was going to happen shortly to them. He chuckled her under her pretty, round chin and asked: "Are you worried about the Amazons, chicken? We won't hurt them, if they behave themselves."

She shook her head, gave him a peculiar smile. Then she qualified the gesture with a confidential whisper the Cap couldn't hear. "I'm really thinking about the women, but it's because I'm worrying about what will become of Captain Alain when he gets mixed up with a city full of nothing but old women."

To Elvir, any woman over eighteen was old.

The inference behind her words tickled Chan so that he laughed. She grinned too, her eyes sparkling up at him, woman-wise in a child's face. It hit him suddenly. "Don't worry about the Cap where women are concerned. He can take 'em or leave 'em alone." He eyed her with wonder in his gaze. The scamp was actually jealous, and not with any childish jealousy, either.

She shook her curls again. "You don't know about the Priestesses. I do! I was to be a slave in the Temple of Myrmi-Atla, the glorious All-Mother. The other slaves talked about them all the time. They're not ordinary women; they're sorceresses."

The mate pooh-poohed the idea. "There's no such thing as sorcery, child. Not on Phira, anyway."

"You'll see," she predicted direly, knowingly with the all-wisdom of a

child. "They'll wind the captain around their fingers. And I don't want to see it. I like him too much to see him made a fool of. If I was older, I'd do something about it."

Chan wanted to say bluntly: "What?" but sight of her serious face made him think better of it. Instead he said: "Tell you what, Elvir; you and I can look ahead a little. We can plan to outfigure them. If some of the Matriarchs get under his skin, we'll fix them, eh?"

She put her child's hand in the mate's horny paw and shook. "It's a deal, Chan."

THE PHIRANS must have had plenty of warning of the attacking fleet, for their armada was sighted some four hours out of their solar system. Their ships were old, a style obsolete for half a century, which is a long time in the growth of galactic science. However; they had obviously been recently refitted and newly engined, for those blunt, clumsy power-hogs were fairly splitting the ether when Konoparian telescopes identified them.

They split their forces right and left, which could be taken either for feminine thinking or stupidity, for no man would have divided his power that way. Tor Branthak took immediate advantage of the weakness and blasted his forces into the opening between and poured fission bombs and detonator rays right and left into the Phiran fleet. It looked to Chan as if the battle were ended before it had begun. The women had lost.

Gan Alain kept the *Warspear* right on the Regent's tail where he could see what was going on and be ready to repel attack as per agreement.

Then the Phirans, old and delapidated as their fleet seemed, sprang a surprise. They had opened in the center just wide enough to get out of

the way of a huge dark shape coming up from their rear. They had kept a screen of ships between it and the Konaparians or it would have been seen before. Now it was too late. Chan recognized her after a minute and sang out a warning.

"That's a Mixar ship, Cap! She carries potent stuff!"

Chan knew Mixar was on the outer rim of the Dires cluster, and that this ship must have been a year making the trip to Phira; thus her presence here must be due solely to chance. But that chance looked like disaster to the Konaparians. This thing was a super-dreadnaught in size, and no one really knew what a Mixar ship packed in armament. The cult of Myrmi-Atla had originally come from the planets of the Regulus group, where the Mixar Amazons had kept out all intruders since the earliest days of space travel. When he said she was potent, Chan had understated the case. Tor Branthak's heart must have bounced in his boots when he saw her.

The big ship opened fire at once. A ray came out of her nose turret that must have been three feet wide at the orifice, and it broadened its bath. It struck the nearest of its enemies, a Konapar cruiser, then lanced swiftly right and left while Konoparian ships zoomed frantically right and left and up and down—any way to leave the vicinity of that dread, dark shape. The ships the ray had touched seemed unaffected as they drove straight on in their courses, through the Phiran fleet; but the fact they did not fire a shot revealed the truth—they were manned by dead men.

Chan took a look at the visiscreen to see what the fleet was doing as a whole. The *Warspear* and the Regent's big master-class cruiser were almost the only force now left in range of the Mixar threat, the rest

of the valiant Konaparians rapidly vanishing to the rear. Space torpedoes were blossoming into fire against the Mixar hull, but the men who had fired them had left the scene.

The torpedoes didn't seem to effect her armor. She boomed on inexorably nearer the Regent's ship, and it struck Gan Alain that the Regent was only waiting to see what his new employee could do about it—which was silly, as the Mixar was at least ten times the *Warspear's* size. Actually, the Regent was probably stunned with surprise, and had unconsciously looked to his newest ally for a possible salvation of the situation.

The Cap had a tight grin on his grim face, and Chan watched him pull the graviton-sphere hatch lever, watched the glowing sphere of charged metal drift out into space. Gan Alain was revealing one of his special weapons, and probably with it, its range. Perhaps the Regent would be surprised in a disagreeable as well as a pleasant way.

GAN FLICKED a repulsor ray against the sphere, and it moved sluggishly off toward the Mixar ship. Then the Cap spun the *Warspear* end-for-end and gave the rear jets to the deadly sphere. The *Warspear* went away fast, but the rough iron sphere of red hot metal bobbed equally fast, though more clumsily, on its way toward the big stranger, looking about as harmless as a hunk of asteroid rock.

The maneuver was probably as incomprehensible to the Mixars as it was to the Regent, who turned tail too, and fled after the *Warspear*. The graviton sphere is a device that is unknown in the Dires system. The *Warspear* had gone far to pick that up.

The sphere went humping along toward the enemy, who seemed to watch

it contemptuously. They swerved the Mixar gently aside to avoid it, no more than necessary. The sphere swerved too, and now picked up speed. The Mixar took alarm then and, like the *Warspear*, spun around and gave it their rear jets.

What they didn't know was that the sphere was carrying a motor generator creating gravitons, which was fueled by a fission metal which was also its warhead. It manufactured gravitons so fast that its artificial gravity was by now nearly equal to a big planet like Phira, and it was so close that all the blasts in the Mixar fuel tanks couldn't drive it away. They were trying to escape a thing that nothing ever escaped, unless, like Cap, they got away before the generator really got up speed. Since the sphere had no genuine inertia or mass of its own, its artificial gravity drew it toward any object inexorably, in spite of all attempts to escape.

The jets had no effect upon the sphere, for it wasn't the same chunk of iron it had been when the *Warspear's* jets started it on its way. Now it was a vast contact bomb, homing on the Mixar ship, and its graviton generators were stepping up more revolutions by the second.

The only effective defense against the thing now was to bomb or torpedo it so that it wasted its explosive force in space, but its size was so small that this was a virtual impossibility in the short time remaining. The Mixar had made the mistake of trying to blast it away with its jets, as it had seen the *Warspear* do.

The explosion blew a hole in the Mixar's rear into which the *Warspear* could have driven and parked, with room for a theater besides.

The Mixar dreadnaught lost way, drifted slowly in a circle, her jets guttering as she tried vainly to get

going again. Then she blew up, giving off a glare of light like a little star as her fuel fissioned.

The disaster took the heart out of Phira and put it back into the Konaparian fleet. The invaders appeared again from out of the blue yonder. The Phirans smashed into them, fighting heroically, but with no apparent tactic but desperation. They were well-weaponed, but outnumbered. With better tactics, they might have counted heavily, but it was evident they had based their hopes on the big ship from the neighboring solar system, and that it had contained their tactical brains, too.

The Cap grinned as he eased his big body from the control seat and motioned Chan to replace him. "It looks as if the Matriarchs are going to have to take masculine orders for awhile," he said to Chan, but the mate didn't smile.

"I don't like it, Captain," said Chan. "What have you got against the Phiran females you should knock their pins out for Konapar? How do you know it wouldn't have paid better to fight for the women, as it is natural for a man to do?"

Gan frowned, shook his head. "You'll find out, DuChaile. Wait until you understand the Matriarchs; then you'll agree."

The Phirans fled, reformed, tried to meet Konapar again on the edge of their solar system. But it was no go. They lost two to one in a brief, raging encounter. They fled again, a fifth of the fleet that had come out to meet the invaders. The rest drifted, hulls riddled, along the route they had so recently covered.

It was the only resistance to the invasion. When a scout party jettied down over Alid, a white flag of surrender floated over the spire of the Temple of Myrmi-Atla—and the

Temple of Alid rules all Phira.

CELYS, high priestess of Myrmi-Atla, stood peering from the ornate leaded panes of her sanctum in the temple. She watched the orange sky where one by one the great warships of Konapar loomed out of the flaming horizon, grew huger, settled to a landing on the plateau above the valley where the Holy City stretched along the high, curving banks of the sacred river Kroon.

There were tears in the lovely emerald-flecked gold eyes of the priestess. Her long lashes were wet, and her slender hands upon the black and gold of the drapes trembled with anger. She knew quite well why Gunnar Tor Branthak had broken treaty with Phira. It was not for gold, not for loot, not for power. What the Tor wanted was *the secret!*

Beside the window the dark stones slid silently aside, revealing an opening and a passage within the seemingly solid wall. In the darkness a tall, pale figure moved like a cold flame, silent as a ghost. Celys turned as the figure reached out and touched her shoulder. The two stood with eyes fixed upon each other, then, as if moved by identical emotion, joined in close embrace. The one who had entered from the wall murmured: "It had been so very long, dear. The Mother has sent me to replace you. You are to return to Avalaon. She needs to take council in this crisis, and you should be there."

Celys released herself from the arms of the newcomer. As they turned about each other, the illusion of one slipping into the place of the other was magically perfect. Anyone watching would have sworn some mystery of identity was here, for the two women seemed to have changed places, yet Celys still stood by the

window. One glided into the wall, which returned to its seeming solidity, and the other moved into the identical posture in which Celys had stood, peering through the lifted drapes over the conquered city. And there was no change in her. It was Celys, high priestess of Myrmi-Atla, the supreme power over all the planet Phira until today.

Celys turned from the window, letting the dark drape fall and shut out the hated sight of the conquerors. She stood, a pale flame in the temple gloom, a lance of green in her diaphanous robe—the green that symbolized the lifeblood of the All-Mother—topped by the ruddy hue of her rich red-gold hair, curled and coiled high, bound in a net of emeralds. She stood, weeping silently, her face stiff from the effort to keep from sobbing aloud.

Across the polished stone paving of the temple chamber came a swiftly running, white-robed figure, one of the acolytes, a girl of perhaps fourteen. She swept to a half-salaam before Celys, then clasped her about the waist, her voice choked: "Dear Mistress, I know how your heart twists in pain. But let us go—the Empress in Mixar offers asylum. The ship waits, why will you not go to safety? We do not matter, but *you* bear the very torch of the true religion in your breast. You must save it, to light the fire where it will not be snuffed out again."

Celys put her hand on the girl's head and raised her face. "No, little friend, I may not shame the Mother by running away. I, before all others, must face the conqueror without fear."

The girl clung to her silently for a moment, then as in an afterthought, said: "There is a little messenger come to you, a tiny wisp of a girl.

She says she comes from an enemy ship and bears a secret message. I thought she lied, or was mad, for it hardly makes sense."

"Send her to me," said Celys.

LITTLE Elvir stood before Celys, somewhat abashed by her regal beauty and the sadness in her face. But her pretty chin squared with determination, and her child's heart beat madly, her mind spinning with plans.

She began: "I slipped away when no one was looking, to see for myself the city of Amazons, where women rule men, and men are but servants."

Celys' eyes went chill, and she half turned away. "If that is all the child wants, take her and put her outside the temple gates."

Eloi, the acolyte who had shown her into the sanctum, took Elvir firmly by the arm, but the little slave girl twisted free and darted behind the tall form of Celys.

"That isn't all. I bear an important message that Captain Gan Alain would trust to no one but me."

"What is the message, sparrow?" asked Celys, coldly, withdrawing slightly from the somewhat grimy hand that clutched her immaculate skirts.

"Not Gan Alain, the pirate?" queried Eloi, pausing in her circling attempt to catch the quick little child.

Elvir shrieked at her, horrified at her words. "He's *not* a pirate! He's a privateer, and the bravest fighting man in all space."

"The difference is found only in the spelling of the word," commented Celys, smiling in spite of herself at the loyalty on the pert face.

Eloi's eyes caught those of Celys, both of them realizing that here might be some kind of a lever, some tiny opening in the conqueror's ar-

mor. Gan Alain was a mercenary, mercenaries can be bought, and here was contact with one in the pay of the enemy. Celys bent, then, her eyes searching the child's face for character, to know whether her words would be lies or not.

"Tell me quickly, child. Did your master send you, and is he in the employ of Tor Branthak?"

"That he did, and that he is. He wants you Amazon women to hide yourselves, to have no contact with the enemy in any way. Otherwise a terrible fate will befall you."

Celys laughed, suddenly perceiving the real mind behind the message. "And did your master truly say those words, little sparrow, or did you yourself get them from some storybook?"

But now, Eloï, who had again caught hold of Elvir's slender wrist, suddenly raised it so that Celys could see and cried out: "She has the sign of the Mother upon her forearm! She is one of our own temple slaves!"

Celys looked startled, bent and peered at the little blue scroll and enclosed symbol of Myrmi-Atla upon Elvir's arm.

"Where did you come from, imp? And what do you want? Answer truly, or I'll have you thrashed until you tell the truth!"

Elvir had been whipped before. Tears gathered in her eyes, and at last she blurted out: "I only wanted Captain Gan to stay away from the Amazons...and I didn't know what else to do."

Celys' further questions proved of no help. Her origin remained a mystery, except that it was obvious that the ship from which the Cap had taken her was one bought and paid for by a Phiran buyer, at which time Elvir had received the indelible tattoo of ownership. Celys had her sent to the slaves' quarters and proceeded to

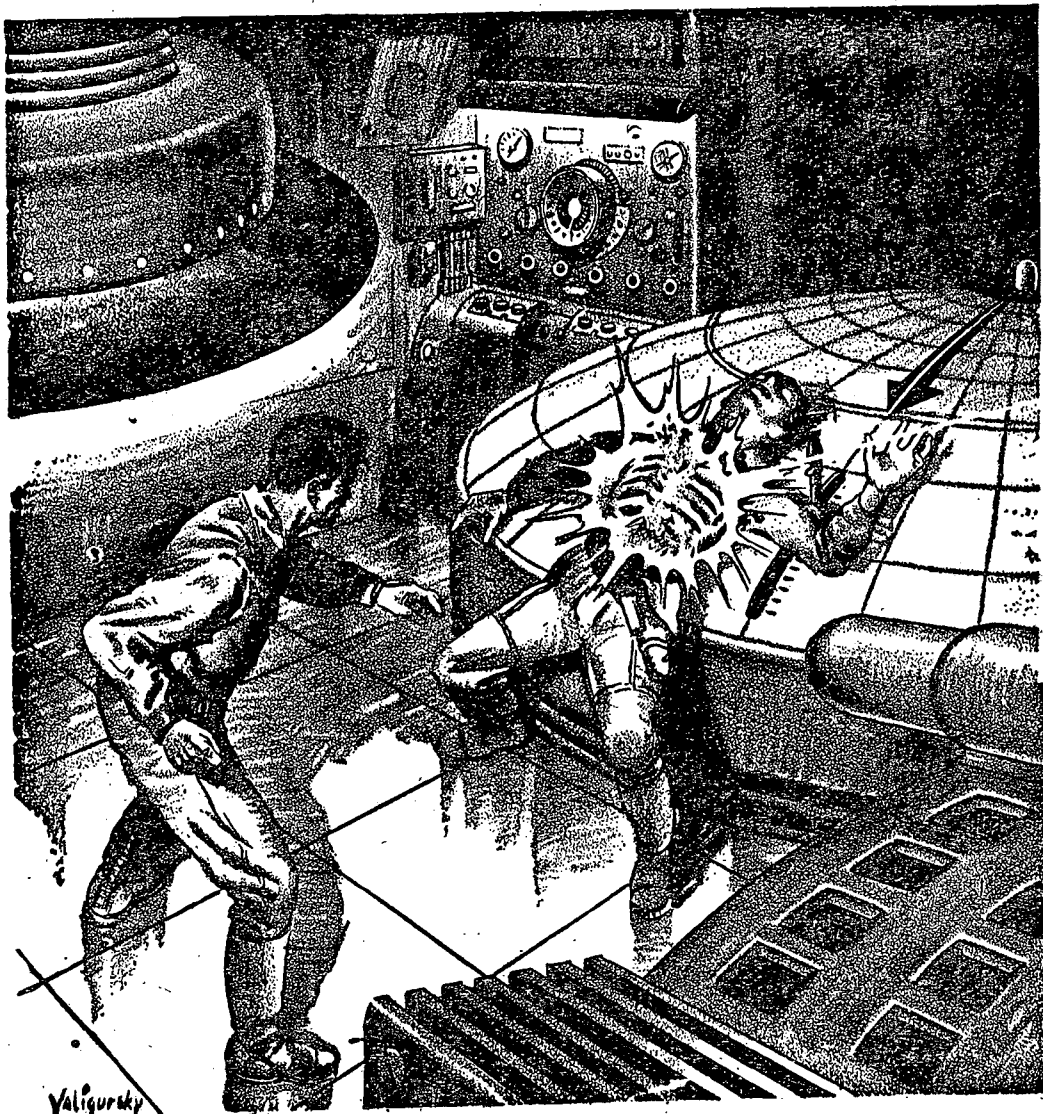
forget about her. Tor Branthak would demand audience within the hour and she must make ready. She had no time for a silly child. As for Tor Branthak, she could not imagine what she should be ready for, except that it would not be pleasant.

ON THE great plateau above the city—where the fleet lay while the troops disembarked, formed ranks, marched down the steep highway into the city—a council of war was being held. In the salon of Tor Branthak's flagship officers stood at attention as the bearded Regent gave final orders for the occupation of Alid. One by one the officers saluted, wheeled, left on the double to join the waiting troops.

When the room was quite empty, Gan Alain found himself alone, facing the quizzical smile of the Regent. For a long moment the silence held as the two big men measured each other, then the Regent gave a booming laugh and reached out with a big hand to shake the Captain's. Gan smiled. The ruler was hard to resist. He had a way with men and it was evident that his officers admired him.

"I suppose, Captain, that you are wondering just where you fit in now that the nut is cracked? Whether you come out cathird or get some of the meat? To tell you the truth, to get the most out of you, I've got to offer you the most. Sit down."

The furnishings of the salon were screwed fast to the floor plates, and the only place to sit near at hand was the top of an ornate desk. Alain sat, swinging one booted leg from the edge. The Regent crossed behind it, swung open a door in the back, handed a tall flagon of blue liquor and two glasses to the Cap. Gan set the glasses down, and the Regent sat in the chair behind the desk. Gan filled the glasses,



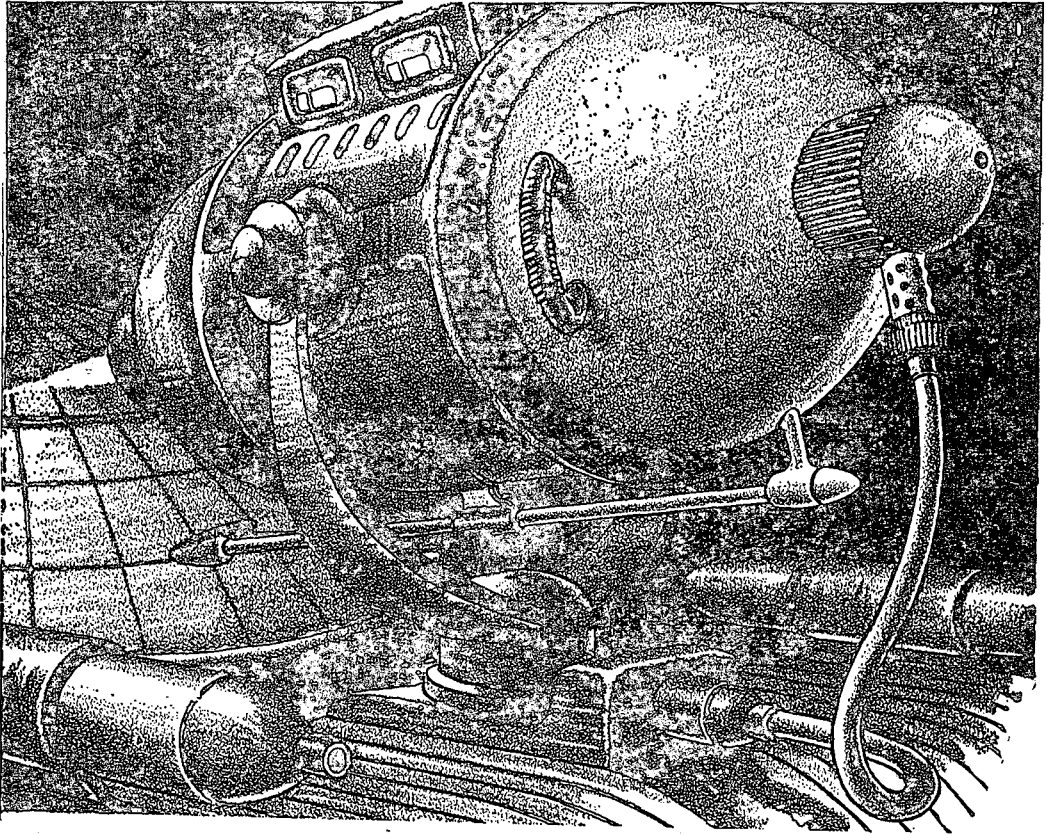
raised one to eye level, grinned as he toasted: "To Myrmi-Atla and her daughters, the priestesses of Sacred Alid. May they live...long."

Gan waited, his eyes on the suddenly wary eyes of Tor Branthak. Slowly the ruler picked up his glass and, as Gan touched his own to his lips, tossed the liquor down his throat with a quick motion and set the glass down hard as if he had made a decision.

"I was going to tell you anyway, Captain, but since you know, it makes it simpler. It's not generally known, you realize?"

Gan's voice was hard and even, without a shade of emotion. "On the contrary, it's well known."

"My officers do *not* know! As far as I have been able to learn, I'm the only man in all the forces of Konapar who does know for a certainty what



The odor of seared flesh permeated the room, and the man's horrible screams resounded

treasure these women hold in secret. For to whom could a man trust a secret so valuable?"

Gan Alain's voice remained even and calm as he echoed: "To whom trust—immortality?"

"My spies stole the record books from the temple some time ago. Those records reach back many centuries, Captain Alain. In those records are many deaths, and every death is male! Yet the whole organization of this religion of theirs is dominated, staffed—by women! It's impossible!"

Gan's voice echoed the Regent's once more: "Impossible but true, Your Highness. Quite true. And not the secret you think. I've heard it in rumor often. Once I had it by word

of mouth from one who claimed to know. They *don't* die, these women!"

The Regent's voice took on a note of awe, of puzzlement, and ended in an angry exclamation: "They live on and on! But how? Man, how?"

Alain shrugged, his face expressionless.

The Regent clenched a big fist, struck it on the table. "We're *men*, Captain. They are women who deny this thing to any man, deny it to any but members of their sacrosanct religious organization. We've got to wring it out of them some way. *Any* way. I can't go after it openly—my followers would think me mad to believe such an impossible story. But you and I, knowing, having them in

our hands, under our absolute power—it will be strange if we can't get the truth out of them, or out of at least *one* of them!"

GAN STOOD up, leaned over the desk to bring his face on a level with Tor Branthak's. "Give me a free hand, Tor Branthak! Back my play with your authority. Put my men in charge of the main temple and the priestesses. When I get the secret, then we open it up, make it known to all, and your conquest will be justified in all men's eyes and you will become a savior, a champion who fights for all men against an ugly, secretive monopoly—of life itself! We'll have proof..."

"If we tell them, Captain. It's a problem unique to my experience. A lot depends on the nature of the secret. Is it a drug, a medicine, a ray, or is it some damned impossible abracadabra of their religion, something we couldn't give away if we wanted to? For that matter, why tell anyone if we do find it?"

"We'll find it! What do you think I threw in with you for? What you do with it after we find it is entirely up to you, Tor Branthak. I'll know too, and I'll not deny such a thing to my friends. I've small respect for Myrmi-Atla if she teaches her worshippers to keep such a secret from all mankind. Or for her priestesses! They'll find my hand heavy enough, never fear."

Gan Alain straightened, his eyes still holding the dark, hot eyes of Tor Branthak. "Just one more thing, Your Highness. I've a reputation for square dealing. I've also a reputation for getting even. This thing is quite a prize, and a terrible temptation. I'll go along with you as long as I get aboveboard treatment. But *don't*, Tor Branthak, deal off the bottom of the deck. Don't even consider it!"

"You threaten me, Captain?"

For an instant there flashed between the two men a kind of still, terrible lightning; a leashed and fearful power of strange and threatening nature. That lightning came from the glance of Gan Alain's eyes upon Tor Branthak's, a piercing into him of personal power, so that for an instant the Regent's fingers shook on the stem of his glass. As Gan turned away, strode for the door, Tor Branthak poured the glass full again, sipped it slowly, his eyes brooding upon the door through which Gan's broad back disappeared. At last the ruler set his drink down with a hand that was steady again, and his full, sensuous lips twisted in a smile of pure delight—delight tinged with sinister exultation. It was the kind of smile a breaker of horses gives who has bought a seemingly average mount of good appearance, only to find, when astride it, a creature filled with wild, unbounded vitality—a horse hard to break, but infinitely valuable once broken. Tor Branthak spoke aloud to the empty room—and his words were a cold, heavy music ringing in the silence:

"Now that was a mistake, my captain, to show me *that* in you!"

THE ANCIENT Temple of Myrmi-Atla was a vast pile, very old and many times rebuilt and enlarged. There were chambers within chambers, passages in the walls unknown even to the present occupants, and secret chambers known only to the inner circle.

Within one of these secret chambers stood now at attention a hundred young, strong women—warrior women bearing weapon harnesses as if the leather grew upon them. Their eyes were fixed upon a flaming-haired beauty who stood before their ranks

with hands outstretched in benediction.

"You go, war maidens, not in fear or in flight, but only to make ready the way for your return. Our Mother needs time to meet this new threat to the Matriarchy; but the rule of women will not perish from Phira. In every other world known to mankind, the male is dominant, save on Mixar. But it is here, and here alone, where woman fills her proper place in life. Here alone is woman not a downtrodden chattel, not a plaything, not a decoration or a mere bearer of children; but the end and aim of all of the race's existence. You go to Alavaon, not to hide, but to study our conqueror from far-off, and to learn his weaknesses; and when he has forgotten the warrior-women of Myrmi-Atla, we will strike. When all thoughts of peril from our ancient power has vanished from his mind—we will strike, and once again the All-Mother will rule in the same old way. Go, my sisters; go with love and without shame. Shame will come only when you forget our purpose and become again but fireside kittens purring at the feet of the dominant male."

Her words rang with a sincere and ardent determination. On the faces of all the handsome war-maidens the same purpose lived and shone from their eyes, glanced from the hardened muscles of their rosy jaws, breathed with each lift of lovely, proudly swelling young breasts—made for love yet hardened by teaching and encompassing steel to the taste for war and struggle. Red as new-shed blood were their uniforms, slim, graceful legs clad in sleek, shining plasticord, weapon belt with dagger and needle-gun holster hugging each graceful hip, torso and fair breasts covered with the brilliance of ray-proof flex-steel, shoulders bearing proudly the folded glide-

wings of the air-soldier, back wearing the small triple cylinders of the standard atomic jet drive for all glide-wings, strong and graceful arms ringed about with the deadly lightning rings, that Terran-forbidden device of prisoned electrons released only by the ray of the needle gun on their hips.

They were as well equipped, as well trained in appearance, as deadly a group of fighting humans as could be found in the entire galaxy. But for them to fight now, with the heavy-weaponed ships of Tor Branthak and his horde of Konaparians commanding the plateau overlooking the city—with their own fleet almost destroyed—was out of the question. So they saluted, filed into the passage and down to the hidden tunnel which would conduct them from the city. These were the temple guard, and from all the city that day similar groups of warrior women had been stealing away by secret ways to a rendezvous in hidden Avalaon.

Avalaon had served them in historic times more than once as a reservoir of hidden strength in similar crises. For the rule of women in Phira had been challenged by the war fleets of a dozen powers in times past, powers and empires now passed away and forgotten. But the rule of Myrmi-Atla and her warrior maids, of her teacher-priestesses, had survived.

After their going, the temple lay empty and waiting. There were present only the young acolytes, a few of the superior priestesses, and Celys, the present high-priestess, to await the advent of the conqueror and to render him homage.

THE ACOLYTES of Myrmi-Atla were gathered in the great main chamber of worship, before an heroic stone figure of the All-Mother, where Celys led them in singing hymns.

They were awaiting their fate, and the furtive glances the young girls threw at the wide doorways for the first glimpse of the inrush of the male conquerors were of two kinds. For their contacts with men of any kind had been nonexistent, and though they had been taught to fear all men of teachings other than Myrmi-Atla's, still nature herself made their young hearts beat not only with fear but also with anticipation. In the case of Celys, however, the occasional glance she allowed herself would have betrayed her very real emotions to no one.

The expected rape of the temple seemed to have been delayed. The hymns went on and on, and when at last they heard the booted feet ringing upon the sacred paves of the dedicated halls, and raised their voices in even more fervent appeals to the All-Mother, the tramping feet came to a stamping halt some distance from the main doorway.

A single pair of feet moved close now, after a ringing command, and paused quite reverently at the very center of the arched opening. Just as all men of Phira who are devout must remain without any chamber which contains an image of the All-Mother enshrined, the booted conqueror remained.

Celys, her face puzzled at this courteous behavior from the enemy, waved a hand to Eloj, who took her place at the altar. Then Celys moved on silent, graceful feet to meet her fate.

There was a lone man waiting at the door. He was big, scarred, hard, muscular. He was handsome enough, she noted, his mane of hair like curled golden wires in the lamp light. His face was lined with creases of laughter about the mouth, deep crinkles about the corners of the eyes, fierce lines of anger and effort now relaxed. The observing eye of Celys caught

them all. His wide cheeks and heavy jaw were bronzed deeply, and his costume, she thought, was far too swashbuckling an assembly of colors and metals to be seemly for any but a blood-dyed pirate. On each thigh swung a hand weapon of a design Celys did not recognize. Had she known what those weapons had done and could do, it is possible she would have dropped in a faint before him.

Celys put him down as a man impatient of all restraint, a ruthless, domineering rogue, who used his looks and laughter only to disarm unsuspecting womankind. She was sure the straight-seeming honesty of his eyes was only a guise to outwit other rogues less clever than he.

Celys stood just inside the white line that marked the border where no male foot might treat without eternal damnation from the All-Mother, eyeing this monster out of space with all the chill she could muster against his smiling nonchalance. Gan waited, and she waited, each for the other to speak first. Celys lost the struggle.

She shook her head impatiently, stamped her slim, sandaled foot. "What do you want? Who are you? Why are you here?"

Gan did not answer at once, but stood eyeing her and allowing an expression of astonishment to spread slowly across his features. At last he said, with exaggerated respect: "I had expected a much older woman, Mother Celys! How old are you, anyway? Not a day over twenty-five, by appearance."

A FLUSH of embarrassment and anger swept upward from Celys' white neck, and her tongue seemed to stumble as she snapped: "My age is my business. It is also my business to know what you are doing in the temple at this hour of the evening?

No male visitors are allowed except between the hours of three and four in the afternoon."

The smile left Gan Alain's face. His voice became hard and smooth as glass. "My lady, you know very well why I am here. This city has fallen into the hands of the Regent of Konapar. To ensure the safety of your priestesses and the rest of your henery, he has sent me, whom he considers honorable, to protect you from the looting and rapine of conquest. If you expect me to carry out this assignment efficiently, you had better come down off your horse and cooperate. I have already posted my men at the entrances to this warren of misguided female bigots. It would be better if you didn't mistake where the power rests from now on."

Celys' eyes searched the intruder's strong and bronzed face for an instant, then she bowed her head for a long-minute in silent prayer, her lips moving as she asked the All-Mother for guidance. But Gan moved his feet impatiently.

"It would be best if you showed me the place completely. It could well be that I have overlooked the entries and exits which most need guards. No one is to leave without my personal permission, Mother. Understand?"

As Celys raised her head from prayer, she moved silently out before him, expecting to precede him. But he swung into step beside her, and she started at the sound of a score of feet swinging into step behind them. She gave him a glance of pure irritation, but his handsome face remained inscrutable; mockingly so, she decided. She turned her eyes from him with difficulty. There was something indescribably fascinating in the man's presence, a power and dignity she could not recall having remarked in any other man. Mentally she gave

herself a kick at the incongruity of finding power and dignity in the gaudy garb of a pirate.

Celys was not familiar with the rich worlds of space traffic, the brawling, spawning ports of the spaceways. She could not know that Gan's worn corselet of dull gold leather, gemmed with synthetic rubies, his close-fitting breeches of black plasticord with gold piping, the black weapon belt and silver-handled explosive pellet guns made up a costume that in many places would have been considered plain to the point of shabbiness.

But in one way Celys was right. No clothing could conceal the rich wealth of vitality, the vaulting spirit, the leashed physical strength of the man. To Celys' eyes, the swell and ripple of muscles upon his bare arms, where the light glinted from little golden hairs everywhere, was positively vulgar. This barbarian, she muttered angrily to herself, had now all power over the temple, it seemed!

"Did you say something, Mother?" asked Alain, hiding a smile at her reaction to the way he used the word "mother".

Celys stilled her angry thoughts with a practiced facility and flashed him the first smile he had seen upon her face. "Why do you keep calling me 'mother'? Certainly you have lived longer than I."

"On my home planet," answered Gan easily, "we call all women of religious orders 'mother'. Does the word irk you?"

"Oh, no." And Celys gave her head a toss of impatience. "Not at all, Father."

Gan gave his chin a thoughtful massage with his palm. If she was intending to hide what Tor Branthak wanted, she had made a good start. It surely *seemed* that she considered herself younger than he. But then

again, the truth might be even more irritating, if she were indeed a creature who had lived several lifetimes in some strange renewal of youth. This was going to take some sharp work, he foresaw.

THE TEMPLE was vast, and after two hours of steady pacing up and down stairs and halls, of peering into chambers filled with accumulations of centuries of female living, Gan was ready to call a halt.

"Before heaven, dear lady," he swore, "let us collect your charges into one corner of this compost heap and post our guards so that we may get some sleep. I've been through a hard day, if you have not."

Celys did not even pause in her long, lithe striding. Her voice was subtly mocking. "I had thought to find our conquerors spending the first night in celebration, in drinking and lewd wallowing with their captive women. Yet here is a great, brawny hero crying for bed like a sleepy boy. For shame!"

Gan was really tired, and her attitude was getting under his skin. He growled in utter irritation. "It might behoove your petty mightiness to keep a civil tongue, at least until this brawl really settles down. Anything can happen, including those things you have mentioned. They *will* happen if I don't guard you!"

In sudden meekness, Celys turned about and they returned to the main chamber, where the assembled female followers of the mysterious All-Mother still sang in weary voices.

Gan asked: "Isn't there any place where you study; any classrooms, laboratories, workshops where you teach crafts? Is there nothing but sleeping and praying rooms in the whole place?"

Celys' voice seemed to catch in her

throat as she said: "Not...not in the holy temple, Captain. In the schools, which lie without the temple walls, and in other places, are such things taught. Here we teach the Word of the All-Mother only."

"Hmmp!" Gan grunted, and turning on his heel, left her, calling over his shoulder, "Goodnight, Mother."

He was a little surprised that she returned only silence.

WITH THE morning sun Tor Branthak came, at the head of two-score gorgeously uniformed personal guards, to "check the temple for resistance". He greeted Celys where she waited at the center of the great doorway into the shrine of the All-Mother. The Regent knew very well that no male was allowed to cross the white line upon pain of Myrmi-Atla's infinite anger. So he strode across and into the very center of the clustered young priestesses, smilingly eyeing them right and left as if measuring them for girdles. Celys pursued him with horrified face, catching up with him as he turned in wonder that no common soldier of his guard had followed him into the ancient shrine.

"It is forbidden! You intrude!" Celys was crying out, over and over, as if the words were a ritual. Her repeated cry at last angered the Regent.

"Young woman, it is the custom to address me as 'Your Majesty', as I am the virtual emperor of all the might of Konapar, and lately of Phira, also. But of course, you being a woman, you could not be expected to recognize any authority but your own wilfulness. Or can you?"

Celys stood frozen, shock overcoming her at meeting the one being she had most dreaded to meet since the first hostilities. Tor Branthak went on speaking.

"Well, well, my charming priestess, had I known there were such attractive morsels of femininity here, I should have arrived much sooner. Somehow I had expected the Matriarch's intimates to be much older and much uglier than you. Now, dear lady, could you direct me to the creature in charge of this antiquated pile of obsolete masonry?"

Celys' shock was turning into anger at his disrespect for all things Phiran, and she found herself unable to answer. The Regent prodded her. "Come, come—someone looks after all these god-addled female wits, do they not? Where would I find such a one, or have her tasks overcome her mind, too?"

Celys drew herself up, anger and pride and humiliation all mingled in her voice. "I am known as the Supreme Matriarch, Your Majesty. You must forgive my not knowing who you were. I had no warning you would arrive at this time."

The Regent snorted. "You have had warning enough, woman. When the fleet settled down over Alid yesterday, you might know the temple would be visited today. But, you look so very young for such a high position. Tell me, what is your age?"

Celys remained silent, smiling aloofly, as if she had not heard his question. The Regent eyed her, his black eyes snapping with suppressed anger, his fingers clamped on the hilt of his decorative sword at his waist.

"You must know, if you are a Supreme Matriarch, something of the legend of longevity that is commonly related about you. In the records of Phiran events, there has been a certain Celys in office for some two hundred years. I want to know if you are that woman, or some other?"

Celys' voice was low and calm now, and her eyes veiled as if she recited

words from memory. "My name is Celys, it is true, but that is a ritual name. All Supreme Matriarchs take the name of Celys. It is but custom. I have not been in office for so very long."

The Regent pushed his face forward almost into hers. "Just how long, and what is your real name? Answer me! You were the Supreme Matriarch forty years ago; I have that from several eye-witnesses who recognized you. I want to know what is the secret of your perpetual youth?"

"There is no secret, your Highness, believe me. We of Phira come of a long-lived stock. There are the shorter-lived breeds scattered among us, so that our life spans vary from the so-called norm to three and four times the normal. That is all of the secret, and it will do no good to question me, for I can tell you no more than the truth."

GAN ALAIN, who had been awakened by his orderly, hurried up, buckling his belt, tugging his leather corselet straight. He hesitated at the forbidden white line, then grinned and strode across as the assembled young virgins glared at this repeated desecration. Gan's words were still slow with sleep.

"How went affairs in the city overnight, Commander?"

The Tor turned from his intent regard of the Matriarch's masklike white face and smiled broadly at Gan. His answer came with a chuckle: "The householders of Alid put up a spirited resistance, Captain, but aside from several flurries of armed resistance, all went well. The women resented our masculinity vigorously, and they repeatedly attempted to put our warriors in their place—namely out of doors. But all in all, love won, and the militancy of the female popula-

tion seems much abated today."

Gan grinned, realizing that it must have been quite a night for all concerned, and looking at Celys' white and furious face, at her jaws clamped on the furious rhetoric she would like to have used, he burst out laughing.

"That's capital news, Your Highness. It would have been too bad to have been forced to fight. The women of Phira are too pretty to kill. And the men do not fight, it seems."

Tor Branthak turned back to the Matriarch. "You say there is no secret? I would like more in that vein."

Celys composed herself with an effort, forcing her words into a semblance of civility. "It is just that you are unacquainted with the teachings of the All-Mother. Everyone who worships in our shrines, all over Phira and over some ten other planets, knows that the principle figures of the Matriarchate are supposed to be immortal. Few believe it, accepting it only as a pleasant fiction, a survival from a more ignorant time. As I have told you, the truth is we come of long-lived blood lines, and our offices are hereditary."

The Regent snorted again, his eyes cold now, his face no longer smiling, but with a black look like a gathering storm. "So it is a pleasant fiction? As it happens, my dear no-longer Supreme Matriarch, I have the records of the Matriarchy in my possession. Those worn books give rather intimate details of the inner workings of your fantastically powerful organization, reaching back some eight centuries. I know the truth, Celys. Why do you think I risked my life, my position and the honor of the Empire of Kona-par in this war? I want that information!"

Celys' sudden laugh was superb acting. It was scornful of the Regent's ignorance and credulity. It rang with

merriment at the impossibly devastating results of one man's simple-minded belief in the impossible. It rang all through the gamut of ridicule, and as she laughed, the Regent's face paled, his eyes grew stormy and filled with a terrible anger, his ruddy cheeks sagged into murderous lines.

Celys, glancing into his eyes, paled suddenly and her laugh choked in her throat. She put out a hand as if to hold back the death she saw in his face. Her words were hurried and frightened.

"Of course the fiction is kept upon the books, Your Highness. Our people believe in their goddess and her infinite powers. They believe in us, her immortal representatives. But surely a worldly man like you, who know the religions of a dozen sun-systems, must understand such anachronisms in all mysticism? It is an ancient religion, this worship of the All-Mother, surviving from a dark past, kept up because of the simple natures of our more lowly supporters. Surely you can't believe..."

GAN ALAIN looked at her in open admiration. She was gambling her life upon her ability to lie, and doing a superb job—or else he was a fool, and the Regent a bigger one. Gan rubbed his chin, bristly with the early-rising kinks that only a brush would remove, and eyed the Tor quizzically.

Tor Branthak's eyes narrowed. He studied the woman's pale, exquisite countenance for a long half-minute. Then he growled: "You will submit proofs of the deaths of your predecessors, the dates, and show my men their graves. And you will do the same for every other supposedly immortal member of your female conspiracy against the natural dominance of mankind over womankind. That means I want proof of births and dates, and

no trumped-up forged papers will serve. You'll either prove what you have just said, and that soon, my yellow-eyed beauty, or I'll have the truth out of you with hot pincers. No woman can sport two hundred years as if they were but twenty-five and keep the method secret from all other human beings—not while Tor Branthak has a will and a way. Now get out of my sight, before I order worse to happen to you."

The Tor's black eyes burned into hers with an intensity that left her no doubt as to his sincerity. She put a hand to her face, and seemed about to falter, her knees bending with the effect of his anger upon her, then she turned slowly and moved away, weaving slightly with a sudden weakness. The hearts of both men went out to her, then they caught each other's eyes and the signs of sympathy upon each face, and suddenly both burst out laughing at allowing a woman's pretense of weakness to disarm them.

"A damned fine actress," murmured the Regent.

"A very experienced one, at the least, Tor Branthak," muttered Gan Alain in reply. "But are we mere mortals strong enough to put our threats into force? Will she not cozen you some way into believing that it takes no special equipment to outlive others until you tire of life? Could you actually put a hot iron to that lovely flesh?"

Tor Branthak's face grew dark again, and the sympathy disappeared. "I can and I will, Captain! But first you will try every other method that may occur to you, for I must confess I admire the woman too much to want to kill her. But know the truth we shall before too long, and you can place your money on that."

Then the Regent spun on his heel

and left, his boots ringing metallically on the stone pave, the virgin priestesses watching him go with horror in their soft young eyes.

Gan moved off in the wake of the vanishing figure of Celys, determined to spend as much time as possible with her, and to leave no stone unturned that might save her from a position that might actually be as she said—a mere relic from the dark past, an ancient artifice that was kept alive to fill the coffers of the temple.

Gan caught up with her where she stood alone in a corridor, leaning with one hand against the wall as if she had no strength to go further. It was in fact the first time in her life that she had been face to face with the threat of torture; and as she looked up from her reverie to find the scarred, bronzed visage of Gan Alain beside her, the reality of the horror that might be visited upon her found ample substantiation in his grim eyes. For Gan felt that if these women *did* conceal such a secret behind the facade of religious mummery, no fate was too evil for them.

NEITHER of them spoke, but they measured each other with intent eyes, looking for the hidden things behind, and finding in each other much of deep interest and attraction. The silence and the deep regard became embarrassing as there slowly flamed between them the inevitable fascination of vitality, which each possessed in so great a measure. Gan was looking for some slight evidence of a continued effort toward masquerade, toward the false drama he felt she knew could be her only defense. And he found that evidence, for he knew enough of women to know that the next card she would play would be her sex.

She came to him, as if drawn ir-

resistibly, and she did it perfectly, her hair a pale glory about her glowing, brilliant eyes in the dimness, her body soft and warm beneath the soft robe of diaphanous green, her eyes grown heavy and sweet as if with sleep. His arms went about her, and their lips halted but inches from the other's, parted and anticipating the thrill to come, hers seemingly heavy with unspoken questions that could be answered in but one way.

Then Gan crushed her to him and drank deep of her scarlet mouth. Her hands pressed him back ineffectually, then beat upon his chest, then suddenly relaxed and she became a limp weight in his arms. He released her, but she sagged downward and would have fallen had he not embraced her again. It was not until the weight in his arms told him that he had forgotten his strength and nearly crushed her that he felt remorse, and even then he was not sure but that it was only more acting. It was the logical next move, to play the part of an innocent virgin who faints at a kiss... but then these people of Phira could not have the strength that was his, their planet being but a third the weight of his own birthplace.

Long minutes later she raised her head and opened her eyes on his. She sighed. "Your arms are like steel bands. You can't be human!"

Gan was convinced. It had been an honest kiss, and his strength had caused unconsciousness. He determined to act as she would have expected had she been successful in deceiving him. He murmured: "I've been wanting to do that since I first saw you. Looking so sad and frightened, you were irresistible. Forgive me."

She released herself and her round, lovely arms raised, straightened her hair, the while she kept her eyes on

his, soberly measuring him still again.

Just then a tiny form came racing up the corridor, flung itself against Gan bodily, embracing him, sobbing in unashamed delight. "Oh Captain Gan, they kept me locked up. I couldn't get back to you. Don't let them whip me again."

IT WAS little Elvir, dressed now in the simple yellow tunic of the temple slaves, which left her pretty legs exposed to the thighs, but covered the rest of her very modestly. Gan dropped an amazed hand to her curls, then, as astonishment over her sudden appearance abated, her words soaked into his somewhat bemused mind. He started in anger.

"And have you been whipped, little one?" he asked, his voice taking on the undertones of the angry bellow of which his crew lived in dread. "Tell me who did it, and why?"

Elvir, seeing the tell-tale flushed cheeks and heavy eyes of Celys, suddenly remembered her original errand into the temple; and her wits began to whirl in double time.

"They wouldn't believe that I'm off the *Warspear*, and they shut me up with their slaves. Yesterday they whipped me for lying to them. I hate the priestesses, and I hate their old temple and the whole mess of lies they tell, too. *I* didn't lie; *they* did!"

Alain looked at Celys, wrath gathering in his eyes. "Was it you had Elvir whipped, dear lady?"

Celys, feeling that every possible avenue of reasonable relationships with these conquerors was inexorably closing before her, only saw one more obstacle arising in this silly child's words. Her neck stiffened, her eyes flashed.

"She bears the temple mark on her arm. So far as I am concerned, she belongs to Myrmi-Atla, and may be

whipped if the priestesses desire."

"She happens to be my personal property," scowled Gan. "You will henceforth allow her the liberty of the temple and of the city. Do you understand, or must there be more words about the matter?"

Celys nodded slowly, not trusting herself to speak, but her eyes upon little Elvir's were pale as ice. She had had no idea it could be so terribly difficult to be in a subordinate position. Little things mattered so, suddenly. This was going to take masterly control, infinite tact and patience—and she had so little experience in the use of either.

Feeling that her days of liberty were numbered, she became suddenly frightened and whirled and took flight from this terrible bronzed man of space, hastening down the interminable corridor with undignified strides. Gan watched her go, then strode off to check his guards and to search the temple and the nearby "schools" for more concrete evidence of the Matriarch's secret pursuits. At his heels tripped Elvir, her heart full of glee that Gan and the "old" chieftainess of the stuck-up priestesses weren't hitting it off.

DAYS LATER, with the Regent increasingly impatient, Gan's search led him into the subterranean maze of passages beneath the ancient temple. Alone, with nothing in his hands but a flash for light, he was startled by a cry of pain ahead, for he had supposed these forgotten chambers to be empty of all life.

He put out his light, raced ahead on silent feet, guiding himself with a palm against the damp stone wall. A glow of light coming from several openings ahead brought him to a halt. He moved forward more cautiously, peering at last through a grille of or-

namental iron, rusted almost away.

The scene before him was startling. There were a dozen of the warrior maids in shining harness, looking like Valkyries with their folded shoulder glide wings. They had opened a concealed trap in the floor and were lowering some bulky mechanical device through it with the aid of ropes.

Gan could not make a move for fear of detection. They were armed and he was alone. He stood motionless and silent, but minutes ticked by and still they struggled with the weight, which seemed too large for the opening. He noted one of the girls had blood on her hand. Obviously the one who had cried out in pain.

He began a slow retreat, trying to steal away as unnoticed as he had come, only to have his holstered gun strike the wall with a loud thump.

He gave up all caution with the sound and sprinted off, flashing his light ahead for a glimpse of the corridor wall along which he had approached. But, unseen by him, one of the elder Matriarchs had been standing guard at a doorway near the window he had peered through. This officer, leader of the squad of war-maidens, darted out into the center of the corridor, saw his form outlined in his own momentary flash of light.

She fired, and her pellet blasted the pavement from under Gan's flying feet. He took a running dive into a doorway and brought up in the darkness with his head rammed against a soft, cowering form which whimpered with pain at his impact. He clamped hard hands about a throat and might have hurt her, but instead he relaxed his grip and asked: "Who are you? Quick!"

"It's only your little Elvir, Captain Gan. I was watching the priestess, and I followed her down here. When I saw what they were doing I started back

to get you, but they heard me. I ducked in here and they didn't even look for me. There's a door behind us, but it's locked."

PUSHING the girl behind him, Gan fired once into the heavy door. The planks splintered and the thing hung half destroyed. Elvir gave a scream as flying splinters struck around them, but the pillars of the doorway protected them from the blast. Gan put his shoulder to the wreckage and shoved the door open. The hand-flash revealed rows of work benches, a litter of apparatus long unused, dust and disorder. A dim light hung in the center of the chamber, a worn-out glow lamp such as the Phirans use everywhere, but its light was near useless. Gan realized that this had once been a lavishly fitted laboratory, but was now long abandoned. This was the kind of evidence he was looking for, as Celys had claimed there was little scientific activity among the Matriarch order.

Racing feet behind them drove them forward into the aisles between the work benches, laden down with glassware, retorts, chemicals in jars, intricate experimental assemblies of tubes and fire-rods and glass containers, electrical wiring and other apparatus whose use and nature were wholly mysterious to Gan's searching eyes.

They crouched out of sight in the aisle between two rows of work benches, listening to the running feet pause at the doorway, then come forward hesitantly into the laboratory where they waited.

Gan peered between the interstices of the apparatus, caught a glimpse of the warrior's harness, that of an officer. Her face was flushed and angry, her pellet gun upraised, her eyes darting about the chamber. Gan could

not bring himself to fire, but held his sights on her and waited, thinking how pitiful a culture it was: these lovely creatures trying to repress their own natures and take over all man's duties and ways, with the result that they lived empty lives of envy and hate and a loveless ambition to surpass other women. It just wasn't natural for women to be that way, but then, what man wanted to be a soldier either, at heart?

Step by step she advanced into the room, the shattered door having told her the quarry was here. But her eyes and ears revealed nothing. At last Gan, wearied of the waiting, spoke angrily. "Drop the gun, woman, or I'll have to kill you. I don't want to, you know. I can't get used to the idea of shooting women."

The Amazon whirled, eyes wild with startled fear at the sound of his heavy, dominating voice, and conflict appeared on her face—the desire to drop that gun as she was ordered, the wish not to appear a weak, fearful woman making her clasp the gun more firmly. Her fingers trembled on the heavy saw-grip.

"Drop it, woman. I don't want to hurt you. There's a child with me; you can't fire on me anyway."

At the word *child* the Amazon suddenly relaxed, and Gan realized that he had hit on the one spring that unlocked the Amazons' frozen hearts—they loved children. The gun hand slowly dropped and the gun slipped to the floor.

"Go and pick it up, Elvir, but don't get between us," ordered Gan in a whisper.

Elvir scrambled from under the heavy bench, scuttled across the floor, grabbed up the gun and backed away. Gan stood upright, not ten feet from the Amazon.

"I don't know what you women are

trying to do with all this stealing about and trying to kill. You know Phira has fallen, and you know the Tor won't relax his hold on Alid for all your guerilla tactics. Why don't you give up and go back to being women again? Women weren't meant to rule, only to be loved."

HER HEAD reared back, her eyes blazed at him. She was very beautiful in her metal harness, gleamingly polished and jeweled breast plates and the plumes woven into her dark hair. She drew her graceful legs straight under her and assumed a proud carriage as she cried: "We'll never give up while one Matriarch lives."

"It's such a waste," Gan growled. "Could you tell me one good reason for not giving it up?"

"Our knowledge shall not fall into the hands of murderers and thieves ...and...*men*! You should be able to understand that the secret is a sacred trust, given to us by the All-Mother."

"Bah!" Gan Alain curled a scornful lip at the officer-maid. "Hypocritical cant. As if you believed that the Matriarch's keeping the secret of longevity from mankind was a good deed! It's a filthy sample of selfishness in a minority placing its own interests above every other human's health. Now admit it!"

Her head tossed again, for just an instant of angered pride, then the truth of his words and his charge against the Matriarch sank home. Her head lowered in shame. Gan stood, letting her think it out, watching the flush on her cheeks creep higher.

"It shows on your face," Gan said. "Yet you have never admitted it to yourself before."

Her eyes on his became curiously alive with intense inner mental ac-

tivity. It seemed she was trying to read his mind. At last she sighed, her eyes dropped from his and her head bowed lower. Her voice was muted and soft with deep new emotion.

"Yes, Captain, I have often thought your view might be the correct one, but never allowed myself to admit our wrong. It is so easy to accept teachings one hears all one's life. That is our creed—the dominance of women, the keeping of sciences to the priestesses, the dominance of the Matriarchy over the simpler people of our worlds. But I cannot honestly say that I do not see that our ways are not just or good."

Gan gave a short laugh of triumph. Here was what he had been looking for—one of the leaders who knew the truth, but did not approve of the Matriarchy. Gan moved closer. "Now you're talking sense, and it's the first time I've heard any from these addled females of the temple since I landed on Phira. Now, I'll make you a proposition: reveal this so-sacred secret of life to me, and I'll do my best to get you an adequate reward from the Regent of Konapar."

Her eyes saddened, and the idealistic light fled from her face. Her voice became harsh again, a voice used to command. "I am no traitor, Captain, even though I may not approve of our ways."

"Your oath, I suppose," mused the Cap, aloud. "But have you ever heard of honor? The path of honor for you would seem to dictate that you try to right the ancient wrong these female monopolists have committed, rather than to uphold their crime."

"My name is Aphele, Captain. I have heard of you and know your reputation—all of it." Her eyes twinkled for an instant as she asked: "Are you sure you are completely qualified to talk thus of honor?"

Gan colored, then growled: "I have my code, and I live up to it. Do you? Have you the courage to throw aside your teachings and do the right thing by humanity?"

Her head lifted again in pride. "I have more courage than you, who only pretend to be honest. Suppose I make you a proposition? I will undertake to guide you to a place where the secret you seek may be learned."

"Then there is a secret, and it can be learned, can be taught, it's not some miracle of nature..." Gan was thinking aloud, his eyes measuring her, seeing trickery there, wondering how to out-smart her.

"You are afraid," her low, husky voice taunted him. "You fear I would lead you into a trap."

Gan laughed. "You have me in a trap already, Aphele. All you need do is raise your voice and your war-maidens will come running. Is that machine they were working to hide a part of this so-terrific secret?"

Aphele shook her head. "You could kill me before they arrived, and I do not know that you would not. I'll strike a bargain with you: I will not call out, you will go back to the upper levels. An hour from now I will meet you here alone, to take you on a journey of some days' duration across the desert land where no man travels. There, in a place forbidden to all men, much can be revealed to you."

IT WAS A MAD proposition; that he should give himself into the keeping of this woman, his life dependent upon her word alone, to be led to what fate he could only imagine. Yet there was a daring challenge on her face, a stirring call to his blood. He knew she was offering him more than her words seemed to

indicate. Just what, he could find out only by taking up the challenge. But he did not need to trust her wholly. There were ways unknown to her....

Gan nodded suddenly, his eyes seeming to take fire from her glance. "I'll take your offer, Amazon! I would not wish to place my life's value above that of every human in the galaxy, would you?"

With this parting shot, Gan turned and left, leading little Elvir by the hand. The woman strode after, whispering sharply. "Treachery means death, Captain. You talk of honor, so come in honesty and you will be dealt with honorably."

Gan nodded, did not turn his head. "In one hour I return alone, to see how you keep your word. I may be a fool, but never a coward."

Elvir walked beside him, sobbing little hushed sobs of defeat between clenched teeth. Gan turned and caught her up, holding her face level with his own. "Why the tears, little woman?"

"You've made a date with a sorceress, and you'll never get away from her. You're not mine anymore."

Gan put her down, pausing as he realized the girl knew what was supposed to be a secret to himself alone. Then he laughed and put aside the thought. She would either keep silent or not. It made no difference to him.

IN HIS quarters, Gan found the Regent of Konapar, seated on Gan's own chair, his fingers drumming impatiently upon the table. "Where have you been keeping yourself, Captain? Rendezvous with some captive Phiran priestess?"

Gan was irked by his attitude, did not smile. "Exactly, your Highness. That is just where I have been. I've arranged a meeting, supposedly with one who will reveal the secret we

seek. But I'm under oath not to reveal the matter to you."

The Regent scowled, puzzled. "But you've just broken that oath, haven't you?"

"No. I can't break it until I return. The oath may look different then, you know. They may try to kill me or keep me captive—hard to say what can happen. But I intend to learn whether it is a trap or the genuine thing."

"I'll have you followed. You're a valuable man to me, Captain. I'll not have this."

"Exactly why I brought the matter up at this time. My men will know where I am. There is no need for you to have me followed. You'll have to trust me, Your Highness. It's my neck I'm risking, you know."

The Regent looked thoughtful. "You have a point. If some blunder revealed you were followed by us, it could mean your death, right enough. Very well, Captain. Luck to you. But, to repeat a phrase I picked up from you—don't do it, Captain! Don't even think of it! I'll have you spitted over a slow fire."

Gan laughed. "I'll not keep it from you, Tor Branthak, though I may drive a hard bargain. I'll sell it to you once I get it."

The Tor grimaced. "I'll wager it will cost enough. But then there's always another means if you prove difficult." His eyes lighted. "After all, we will have two chances. I came here on suspicion, meaning to have it out with you, hammer and tongs. I have just ordered the so-called Supreme Matriarch, that young-looking one, taken to the plateau. There, on my own ship, we can give her a thorough going over with instruments, with truth serum, with lie-detectors, injections of drugs—get the facts out of her."

Gan heaved himself to his feet. Unaccountably, the order for Celys' arrest set his blood afire. Rage choked him. The idea of the noble Matriarch handled like a criminal, given dangerous injections, questioned interminably, put through an inquisition that could well ruin her health or worse, was one he could not accept without emotion. But with an effort he held his tongue until his wits cooled.

The Regent noticed nothing, went on drumming with his fingers on the table top. "I've taken quite a fancy to that woman...what's her name now...Calys, Pelys—something. Where the priestesses get their names I can't fathom. They seem to have no family names. The temple is their only family tie. She should make a most ornamental addition to the gems in my harem, if she proves reasonable."

Gan's breath nearly choked him with the hot fire in his lungs. He could not have foreseen this. The man had given no hint of his intentions toward the head Matriarch. Better to wait, bide his time. No good to speak of the thing now.

Gan was having his first full realization of his own attachment to the sharp-tongued Matriarch. This thought struck him, and he relaxed. He nearly smiled as he perceived that there had not been enough between them to give him any confidence that the woman would not prefer the Regent's harem to his own company. She thought of him as an unscrupulous adventurer. Gan stilled his anger, thrust some garments into a small duffle bag, slung it from his shoulder. Clips of pellets for his sidearms completed his preparations. He turned to the Regent and bowed slightly, his smile ironic.

"I trust my departure will cause you no inconvenience, Your Highness.

I expect to be gone but a short time, and I hope to find you well on my return. I have your best wishes for success?"

The Regent studied him for a second, then nodded stiffly. "Formality becomes you, Captain. Don't let the plagued women bamboozle you. Get the facts, and let them stuff their ideals and fine talk where it will do most good."

GAN TURNED on his heel and left. But he had no intention of leaving without making sure of something that was bothering him. He moved off toward the Mother's shrine, where he knew Celys might conceal herself in the sanctum if she had heard of the order to arrest her. It could be that she had not been found as yet.

His guess was correct. The Matriarch had been warned by her eavesdropping young acolytes of the order to take her to the plateau outside the city, and had slipped out of her usual regal green ritual robe and donned one of the simpler white gowns belonging to her acolyte, Eloï. Mingling with the chattering groups of adolescents, she was indiscernible to the searching eyes of the soldiery and had escaped recognition for several hours.

But a few hours ago, when they had all filed into the dining hall, one of the guards had recognized her and given a cry of alarm. Celys had fled headlong, dodging through the familiar and intricate passages with the skill of a hunted fox. Darkness had come on, and she had slipped into the great sacred shrine where the dim light and the huge pillars which supported the dome gave her effective cover.

The crew of Gan Alain were standing guard at their usual posts, while two-score of the Konaparian warriors

scoured the halls and rooms of the temple with search beams in their hands.

Gan paused for a moment beside Chan DuChaile's post before the big arch of the shrine of Myrmi-Atla, and murmured a question. "Have they caught the white bird yet, Chan?"

Chan glanced about, shook his head. Then he whispered: "If you're figuring on something else for her, I can tell you where she is, but not for the likes of Tor Branthak."

"I was planning on taking her to the Mother. Do you know what that means?"

Chan nodded, for he had discussed many things with the chattering young girls who were penned in the temple. "She's slipping from pillar to pillar in her own sacred shrine while the Konapar heroes steal about with lights...."

CELYS crouched behind the great central pillar in the shrine of Myrmi-Atla, watching the swinging lights of the searching Konaparians and praying they would conclude she was not within the darkened shrine and pass on. She shrank back as one small beam swept toward her, then mysteriously blinked out. Feet whispered softly on the stone, and she nearly shrieked as a heavy hand clamped down on her face, shutting off her breath. In her ear a familiar voice whispered.

"Will you be quiet, you beautiful fool? Or must I beat sense through your hide with a whip? I am your friend. Now, tell me, how do we get out of this place before some of the Regent's men spot you?"

The hand slowly released its powerful grasp and Celys shuddered as breath came back into her lungs. The beast was still trying to trick her with his honest blue eyes, with his heart-

ensnaring curls and fearful brawny arms about her. There was nothing he would not stoop to! What was she to do? She who had thought men so simple and easy to fool before—and this one was not fooled in the least, whatever his game. If only he was what he seemed, an honest, strong man trying to do the right thing, rather than an amorous beast trying to undo her reason with his love-making in order to secure the ancient secret from her.

Celys, in a sudden flash of hatred for all things masculine and alien, tugged out a little dagger from a hidden sheath. Her hand drew back, darted forward, and Gan's hand caught her wrist just as the point touched his throat. A few drops of blood stained her wrist as she twisted, and the knife dropped with a sinister tinkling on the floor between them.

Gan had half a mind to call out and bring the searchers down upon her, but he growled softly into her ear: "For a woman who is unable to resist my arms, you show small gratitude for my affection. I come to help you escape the Regent's third-degree, and you try to knife me. Are you just a common murderess, and not the high-minded woman I thought?"

Celys was sincerely thankful the blade had done no harm. The spasm of rage had passed, and she realized she was near the breaking point from strain, or she would never have done such a thing. Tears came to her eyes, and at the same time anger burned in her cheeks, trembled in her hands—anger at her own impotence against these males from another world. She wanted so very much to believe in this man beside her, yet she felt certain he was but a scoundrel who mimicked the ways of honor to betray her.

Gan murmured: "Lead the way to the secret passages that lead from

this temple. I have a way of contacting your forces—in fact, a guide is even now awaiting me in the subterranean passages."

Celys nodded her head in mute acquiescence, her eyes on his with something of final defeat in them. Gan knew that it was the defeat of an overweening feminine pride, which could not bear to think of any man as superior. Her voice was very weak, whispering into his ear.

"Forgive me. I'm half out of my mind with strain. You embodied all the indignities I have suffered—I am not myself. I would have escaped long since through a passage nearby, but I have not been able to approach the entrance, as there has always been somebody about. Come..."

GAN TOOK her hand and let her guide him through the dimness. Then he saw her reason for choosing the shrine of the All-Mother's image for her hiding place. She pressed a carved ornament in the stone of a pillar pedestal and a segment of the pillar opened out. They slipped inside and Celys pulled the false stone back into place. The pillar itself was the top of a tiny stairway, so narrow that Gan had trouble squeezing his great shoulders past the winding steps that circled a center pole. Celys giggled audibly at his contortions.

"This wasn't meant for a fat Matriarch..."

"May you never grow fat...you are perfect as you are," he said, grunting.

Her eyes danced, but he did not know if it was because of his contorted face as he wriggled his way downward, or because of the compliment.

At the bottom Gan paused to readjust his leather corselet. There he discovered the woman had found

opportunity to lift one of his pellet guns from his belt. Gan shivered with sudden apprehension for if she meant to kill him, one of his own guns would prove more efficient than the slender blade with which she had failed.

"Better give me the gun, sister. It was never meant for female hands."

Her laugh was mocking, cool and quite possessed. "So now it's 'sister'? I have become younger since last night? Do you no longer consider me motherly?"

"The gun!" growled Gan, frowning. "You're much too impulsive with weapons to carry them about so carelessly."

"*You* have a weapon. *I* have a weapon. What could be fairer?"

Gan shrugged, his eyes meeting only a rather charming expression of deviltry in hers. Then he said: "Well, keep it. But let me warn you, the triggers have been filed. They're about half the standard pull. Also, there's another thing I must speak to you about. I had a similar altercation with one of your associates. She is waiting now in the subterranean passages to guide me to the Mother. She has my word of honor to reveal nothing of what I learn without permission, and I have hers for my safety. Now that you've led me into this secret passage of yours, you will have to guide me to her."

Rather abruptly she shoved the gun, which she had been holding behind her, toward him. "In that case, take your ugly weapon. I will have no need of it. The mother will decide your fate when we reach Avalaon. Come..."

Gan lifted the weapon gingerly from her hand, for it was actually hair-triggered, and she hadn't handled it too gently. In her hands, it would have been more dangerous to her than to him.

The beautiful Matriarch laughed again at his tense expression, then turned and moved off into the darkness. Here and there along the narrow passages little glow lamps were set, and Gan tried to figure his distance and position in the temple by the distance between lights. But he was hopelessly lost in the twisting of the narrow passage within the walls.

In short minutes she slid open a panel, let him out into the underground chambers where he had left the Amazon, Aphèle. She was waiting there, concealed by the shadows, alone. She moved out into the dim light.

"I thought you'd never come..."

Gan grunted. "I had to rescue the soubrette of the cast. The Tor was about to give her a going over. I suppose you know the Supreme Matriarch?"

Aphèle darted to the open panel, where Celys stood, and the two women touched hands for an instant. Aphèle turned back to Gan Alain. "Must she flee? Her Supremity is needed here. I don't understand."

Celys moved forward, facing Aphèle. "Where have you undertaken to lead this man, Lieutenant? Not to Avalaon?"

Aphèle stood proudly, facing her superior. "I realize the risk. But I believe he might be convinced when he knows all. It is worth trying."

Celys shook her head. "He is but the captain of a single ship, an adventurer of no influence, a mere mercenary under Tor Branthak's command. What good could he do our cause?"

The two women stood facing each other, and what passed between them was mysterious to Gan, for Celys turned away, shrugged, said: "Very well, I have nothing to say. But you are playing with a fire that is apt to

burn more than you think."

Almost immediately Lieutenant Aphele drew her pellet gun, leveled it at Gan. "Your weapons, Captain. I am sorry if I led you to believe you would not be my captive."

Gan gave them up.

NOW THE two women rather pointedly ignored him, and after they caught up with the waiting troops and Gan found himself marching in the center of a score of well-armed and well-disciplined warrior women, he rather doubted his own good sense.

Gan realized that the Matriarch's disappearance, coinciding with his own departure, was going to place Tor Branthak's trust of him under a strain. But the chances were he'd never have to worry about that. What really worried him were his men and his ship. It would have been best if he had demanded his share of the wealth of Alid and left immediately after the city had fallen. But he had been drawn by the damned *secret* and he doubted more strongly every moment that there *was* any secret.

The march continued for what Gan judged was an hour, perhaps some four miles of underground tunnels. Then they entered a line of mono-rail cars suspended from the ceiling of the tunnel. Gan reasoned that they left the cars outside the city because of the possible sound their use might make under the foundations.

The train was light and fast, designed for passenger use only. Gan judged they traveled around sixty miles an hour for several hours. Then the tunnel ended but, before ascending a ramp into the open air, the women donned garments of rough skins and sand hoods of soft leather. These were the garments of the wild nomads of the deserts of Phira, and

at the surface a herd of the horse-like beasts called *morts* was awaiting them.

From the air, the party would resemble any other mounted party of nomads and would cause no unwanted inquiry from the Konaparian scout planes patrolling the planet for possible organized resistance.

"Is the place distant?" asked Gan of Aphele, who rode beside him. Celys had taken her place at the head of the column, riding beside the officer who headed the detachment. Aphele twitched the head of her pop-eyed, horned mount closer to him and smiled as she lifted back the hood from her ears to reveal her wealth of soft brown hair.

"Two days' ride, Captain. Unless you are accustomed to riding, you will have callouses where none were before."

Gan shook his head. "I have never ridden anything not on wheels or jets before. I think I know what you mean already."

The woman's eyes were humorously sympathetic. "You will not enjoy the next two days, Captain. You will need whatever stoicism your nature provides."

Gan, already appreciating the monotony of the repeating dunes and the irritating qualities of sand down his neck, decided that the best way to ignore the unpleasantness was to keep on talking. He was somewhat nettled by the obvious dislike of himself expressed by the warrior women's concerted disregard of his presence. He threw back his own hood, letting the sun shine on his golden curls.

"Have you made this trip often, Aphele?"

"Hundreds of times, Captain. In the last hundred years, I have passed this way at least once every two years."

GAN GULPED. So this was another of the long-lived breed, according to Celys' version of the secret. She looked about twenty-two. The Phiran year was but ten days shorter than the Terran year, and the day was some two hours longer. Gan glanced up at the bright orange double star that served both Konapar and Phira as a sun. Menkis, they called it. On the charts it was labeled Menanger.

"What was that device you and your friends were lowering through the floor when you shot at me?" he asked, watching her face closely. She did not even look at him, watching instead the flight of a gold and blue bird hovering above their heads. Her voice was a discreet murmur, audible not three feet away.

"It was part of the secret which we did not wish the Konaparians to discover, as you suspect."

Gan felt a swift elation surge through him. So she was a convert to his way of thinking; was a friend and ally against the secretive selfishness of these so-holy priestesses.

Then she turned her head and laughed, and spoke more loudly. "What did you say? I am so sleepy..."

He spoke loudly himself. "Aren't you sorry you shot at me last night? You might have killed me."

Her eyes danced. "Oh, I could have, but you are too good-looking to kill. I meant only to take some of the smugness out of you."

"You did," Gan laughed. "I will admit that women can do as good a job of soldiering as men, and but short weeks ago I thought differently."

Aphele twitched the mort's ugly head closer again. She whispered: "I am sick to death of hearing the two sexes compared. Never mention it to

me again. Do you hear?"

"No sex conversation? What will we talk about?"

Aphele frowned. "That is not what I meant, and you know it. On Phira, when a woman decides she wants a Phiran male, she tells him so. I understand that, with Terrans, the opposite is true and the woman must never mention the subject closest to her heart, but wait for the man to speak his love."

Gan nodded, his eyes on hers doubtfully. He read the signs aright—she was his friend, and more! Up to now it had been his custom to avoid too close entanglement with any female. They had always meant trouble. Now it seemed he was in trouble again... But there was an honesty and candor on her face—and Aphele was not only very lovely, but she was also a woman who had already lived several lifetimes. Perhaps her mind, also, was so far ahead of his in perception that she knew exactly what he thought. Certainly the simple directness in her meant profound knowledge of the human mind rather than simplicity.

He asked: "You have lived so much longer than I, you should have greater wisdom, should be able to guess my every thought before I speak; can you tell me what I'm thinking?"

Though she looked at him whimsically, her lips gave a bitter twist. "I know you're afraid to have me say I am attracted to you. I know you are not affected by my beauty. I know that the first Matriarch is in your heart. But listen to me, Terran. Sometimes it is better to be loved than to love. I, at least, would be your friend, and I would expect no lease on your life in return. You know nothing of the nature of my mind. I can be more to you than she—if you will allow yourself to understand."

GAN WAS struck by her serious tone, as well as by the thread of her speech. But another thing occupied his attention: "You say the first Matriarch. Who is that? I had thought Celys was the Supreme Matriarch."

"There are several who play the part of the Supreme Matriarch. She is but a figurehead. The real power rests in the ancient one we travel to consult. She holds the keys to the mystery, the secret you seek. I want to guide you correctly, so that it may be possible for you to live beside me. You see, Terran, I have lost two mates in the years long past, because the secret is denied to males."

Her countenance was a bitter mask of strange loneliness for a second, and Gan realized that living for centuries was perhaps not all peaches and cream. Then the expression passed, and she smiled again, perhaps at his suddenly lugubrious expression over hearing of her former mates.

"You needn't fear me, Gan. I am an experienced woman, who has long ago given up the childish tricks by which young women gain their ends. If you need me, come to me. I will not pursue you."

She twitched at her mount's reins, as if to ride ahead beyond earshot. Gan reached out and seized the mount's reins in one big hand.

"You have read my mind, Aphele, and answered my questions. Can you also read the admiration and liking I have for you?"

She settled back, her face relaxed from its bitterness as he went on: "I want to know one more thing, and then no more questions. Has Celys been married too, lost her mates the same way? Is she, too, centuries old?"

She laughed at his intent face; a laugh at once mocking and tender, as with a child. "You have a disappoint-

ment in store, my friend. Your Celys is not one, but several. Their ages are not young or old, for they are daughters each of the other. All of them are older than you, and have children. There is one, the youngest of the Matriarch line, who is but twice your age. You haven't met her, yet you would know her surely, so closely does she resemble her grandmother."

Gan turned toward the erect figure of Celys ahead. "Her grandmother! A grandmother, that one ahead?" He said it with a kind of dismayed awe.

Aphele nodded, her eyes pitying, her lips twisted in a kind of sad smile. "That is why I tried to tell you, a love such as I offer you is at least less confusing than that which you are bent on pursuing. There is but one of me, and I am not too proud to say you are a man above men, and above most women I have known. Now I leave you to your thoughts."

She rode ahead, to pause beside the stiff, slender figure of Celys. Gan burned with curiosity to hear what they were saying, and if it concerned him. He knew that if he saw them laugh, he would feel like a fool. Just then the two women laughed and glanced back at him and he felt like a fool.

AT LAST the long and arduous trip in the saddle came to an end and they came to the hidden valley of Avalaon. It was a place of trees, tremendous in size. Cedars or redwoods, or some relative of the conifers, towered in aged splendor toward the sky, rich in foliage and mighty in trunk. That there was a city beneath the trees would have been indistinguishable from the air, and Gan could see that great care had

been taken to have no trails or roads leading into the valley. The mouth of the valley was a hilly pass, also heavily wooded, and it could have been defended by one man with an automatic rifle, as the sides were precipitous.

Winding down the faintly worn pathways into the dim depths of the wooded valley, Gan did not expect to find any great number of people or any structures, but he was surprised to find the flourishing city whose extent was difficult to estimate, so the forest growth obscured the vistas. The dwellings were built beneath the trees; several small streams wound about through them and joined in a river that seemed to end in a lake in the center of the valley. The houses were of stone, permanent and old-looking, as if they had been there undisturbed for centuries. But they were lived in, for figures moved along the paths beneath the trees carrying burdens of food or clothing or small cases of metal articles.

Aphele dismounted as they reached the first of these hidden dwellings; and came back to Gan, holding the mort's head as he dismounted.

"How is your backside?" she asked, smiling.

"I am more conscious of its presence than ever before," grinned Gan, bending and stretching.

"You are now in a place never before reached by the uninitiate," she said, her eyes measuring him with evident delight in her glance, a look full of desire and appreciation of his masculinity. "I am responsible for your being here, so if you have a care for my welfare, conduct yourself accordingly. No male has trod these paths for many centuries—since before we can remember. The sacred groves of Myrmi-Atla have been entered only by women who have passed very

stringent examinations and undergone long purification. You may be slain, you know, before I have a chance to make a case for you. I have long been a dissident from the idea of complete female supremacy, and am known as a rebel. Though there are others, we are in the minority. We want men in the organization, we need men. The others will not have it. There is much politics involved, but I will advise you. I am taking you to our true head, who has no title. She is over five hundred years old."

Gan nodded, feeling like a folly-stricken idiot treading where only angels would dare.

The warrior women shed the ugly and bad-smelling disguises, throwing them in a heap where Gan had doffed his own cloak and hood.

SEVERAL slight figures appeared from among the nearby trees and approached. Gan started as he realized they were young girls and quite naked. They came forward in innocent shamelessness, but suddenly one of them saw Gan's stalwart male figure with the curling red-gold beard proclaiming his essential masculinity. The girl gave a scream of utter horror, as if she were confronted by a banshee, and took to her heels. In an instant the grove was filled with the small naked figures running and screaming as the others saw the cause of the initial fright. The screams brought still more naked young numpfs, who came running up. When they saw the great man-figure with the beard, they ran away as quickly as they had come.

There was not a laugh nor an expression in the whole troop of warrior women at this development. It was evident that they had expected it. There were several frowning glances at Aphele, who ignored them. Gan

saw that her idea of bringing him here was disapproved by many.

"No good can come from this violation of the inviolate grove of Avalaon," one of them said coldly to Aphele as they passed her with the saddles of their beasts. They had turned the beasts loose in the forest.

Gan, weaponless, was appreciating to the full the chances of his death now mentioned for the first time by Aphele. But he strode along beside her, just behind the tall and graceful form of Celys, who was still the center of attraction to him in spite of her newest character of grandmother to a woman who resembled her so closely as to be identical.

They passed several of the small stone houses and came to a much larger structure, placed between four of the forest giants so closely that the mighty trunks seemed to uphold the walls and roof. The guarding troop stopped and lined up on each side of the low, wide doorway of plain, rough timbers, deeply marked by time. Gan passed between them with somewhat the feeling of a criminal entering a jail, and the glittering uniforms and stern, if beautiful, faces of the women made him feel guilty for being a man.

Inside the rather dimly lit room there were several women working at desks and file cases, and a score of others seated on benches about the walls. The women at the desks were the first elderly women wearing the regalia of the priestesses of Myrmi-Atla that Gan had seen. These, in a Terran civilization, would have been women of sixty or sixty-five. Here, Gan had no idea of their ages.

In the center of the low-ceilinged place was a rough wooden dais and high-backed chair on which sat a woman Gan would have recognized

as the leader without a nudge from Aphele. The high dome of white brow, the weary-wise eyes, the strong mouth and chin, the proud look of her—Gan moved forward with Aphele and knelt on one knee as did his mentor.

The woman, showing her great age in a mass of wrinkles, but otherwise appearing to be very strong and able, inclined her head, studying them with her face bearing a slight smile. Her voice was high-pitched, but full; a firm and even musical voice.

"Aphele, you have led one of the enemy here?" Her voice was gently chiding. "Can you justify the indiscretion?"

APHELE stood, thrust her high bosom out, and lifted one hand in a gesture of complete confidence.

"The conqueror, Tor Branthak of Konapar, seeks the secret. He hired this pirate captain to obtain it for him without his followers' knowing. Since of course he could unearth no secret, Tor Branthak has ordered the torture of the Supreme Matriarch until she tells. This man rescued our first Celys from her peril, brought her to me, came with us of his own free will. The rest is up to you and our council. I will have more to say in council and you already know my opinions on the matter of secrecy."

The old leader smiled and nodded. "We all know your opinions, Aphele, and none will accuse you of secrecy about them. You shout them out at every opportunity. So, he is not a captive nor yet a hostage, but merely a curious gentleman who wants to see for himself how we stay alive?"

Aphele did not answer, but stepped back one pace with smart military bearing, standing very erect and still. This left Gan facing the old leader of the Amazons alone, and a little sweat broke out on his brow as the

thought came to him that he was facing a person whose mind had been pitted against all men for some five centuries—and had won. Gan kept his eyes on hers unwaveringly, his face quite empty of expression, but he could not control the nerves of his hands, which kept opening and closing as if to grasp some material thing to aid him in this predicament.

The voice of the old woman took on a deeper note, a rasping, critical, angry tone of disapproval.

"Do you realize that these groves of Avalaon have not been violated by man's presence for near a thousand years? And now you come blundering in where the last strength of the female lords of Phira licks its wounds, expecting mercy and benevolence and perhaps romance from our so-pretty warrior maids? You are a bigger fool than the woman who brought you!"

An angry exhalation from the two-score female breasts in the room emphasized her words. It was a long, deep sigh, a kind of "aye", and it meant unanimous agreement with her. Gan, startled, let his glance sweep the room, where more and more of the women were clustering, as the curious took note of the strange meeting. Peeping between the red-uniformed legs of the guard at the door were a score of naked young nymphs, their mouths round with astonishment and fascination. Gan felt more out of place and off balance than he had ever been in his life. He opened his mouth to speak and found himself only able to croak, "Er...ah..." in a dismal sound like a sick frog.

The old woman relaxed suddenly, her hands dropping from their grip on the chair's rough wood arms, and leaned back. Then her voice became humorous. Sarcastically she mimicked him: "The man says, 'er...ah...' If that is not profound wisdom, indeed!

Can you summon no defense, can you think of no good reason why our privacy and isolation should be destroyed by you? Off with you, then, while we take thought of your fate."

Then Gan found his voice, and all of it came boiling up; the many little insults and derogations these women had handed him since he set foot on Phira became a torrent of resentment, and he let out a great bellow such as had made his crew run rather than face him.

"Now listen to me. I've been insulted and chivvied about and made to feel foolish ever since I first met the so-holy priestesses of your All-Mother. I took it like a man, and was courteous and kind and tried my best to protect them from the soldiers of Konapar, and wasn't even thanked by one of you until I met Aphele. I saved your precious Celys from torture the first day on this planet, and had it put off from day to day until I contrived her escape. I have been the good friend of you high-nosed females at the risk of my own precious neck, and now you laugh at me. I am beginning to think the men who say that woman's place is in the hearth, kitchen and bedroom are right. It's a new idea to me, because I've always observed women's low estate on many barbarous planets with great pity. However, perhaps it is the nature of a woman to abuse power even more than men. It seems you enjoy the idea of having the whiphand over a male."

HIS ROARING voice, bringing with it the vast sense of space and the adventurous, roving life he had led, huge and strong and filled with masculine power and anger, filled with righteousness and indignation and contempt of the petty intentions of these women to shoot

their barbed arrows of scorn into him, expressing the rage at his treatment, did far more for him than any argument in words. When his voice ceased, there was a silence as if a god had spoken, and from each female breast there came a sigh, of longing at last realized, a desire at last gratified—to hear a male voice raised in the forest aisles of Avalaon.

The old leader's eyes glittered like diamonds in her face as she looked about at the bemused countenances of the men-starved women about her, each rapt as if still hearing the great male sound of Gan Alain roaring his rage. Whether they glittered with tears or with an evil anger, Gan could not tell. She said nothing in reply, but only waved a hand to Aphele, who tugged at Gan's sleeve of worn gold leather and led him out into the bright, clean air where the piney scent of the forest breathed silence and peace.

"You," murmured Aphele, her eyes glowing, "are a man after my heart. You really gave it to her and the rest of them. They are too long in the saddle to understand that the worlds were not exactly made just for the purpose of organizing women into trampling upon all men. Ah, it was worth the long ride to hear it!"

They had been walking now alone through the trees, and Aphele stopped him. "Now give me a good hard hug and a kiss, as if I were some sweet damsel you knew when you were young enough to think of nothing but kissing girls..."

Gan was not taken unawares by her request, but still he hesitated. Then he remembered how it used to be, when he was a boy walking in the evening with his chosen, how sweet a kiss could be—and he seized her and held her close, bent back her fair face and kissed her heartily. It

was sweet, bitter-sweet, full of memories of other loves, and none of them quite measuring up to Aphele's deep, hungry eyes, nor her strange mouth, so sweet and hungry, yet so sorrowful.

Her smile after the kiss was not the twisted smile she usually gave him, but a full and grateful thanks. Her voice was husky and low as she said: "Oh, it is good, even as it used to be when I believed in love and life and men. You are a man such as I have always longed for but never did quite believe existed. I put a spell upon you, Gan Alain—may you never forget the lips of Aphele, no matter the years or the space between us."

A low and scornful voice behind them made them both whirl, and standing there was Celys, saying: "Not long ago you were making love to me—Celys! Now you are embracing Aphele. What is a woman to think?"

Gan was angry. He gave a short, hard laugh. "Not long ago I did not know you were grandmother to a grown woman, Celys. May I meet the other Supreme Matriarchs?"

Celys flushed angrily, and her hand pointed suddenly at Aphele, her fist clenching tight. "You told him, you ancient thing, to get him for yourself! You know there's not a male like him on all Phira, and I have had his declaration first: I'll get even with you, Aphele! Wait."

Gan stood, somewhat dismayed at her display, and feeling that this was none of his argument. But Aphele needed no help.

"You made him unhappy with your disregard. Now you claim him, after he gives his kiss to me. There was no reason to think you ever wanted the man. I have not claimed him, I only kissed him. Terrans believe in freedom, not chains; and if I know him,

he will prefer my freedom to your dominance, my dear superior."

"That could well be, Celys," growled Gan, seeing now what Aphele had been telling him all along—these women thought they must dominate all things.

Aphele sensed his thought. "They would brand men like horses, Gan, and sometimes do." She went on, coloring as her circulation caught up with her anger. "They think marriage is a thing for a man to wear like a dog collar around his neck, instead of a glorious partnership and a joyous one."

GAN'S FIRST day in Avalaon drew to a close, and Aphele led him to an empty cabin beneath the trees, lit a fire in the rude stone fireplace, left him to his own devices. Almost exhausted, Gan drew off his boots, pulled a fur over himself and went to sleep on the rustic bunk built into the wall.

Some hours later he was awakened by the sound of giggling and soft footsteps. He sat up to find himself surrounded by the naked young girls who had at first shown such horror at his presence. They stood in a circle about his bunk, ranging from tiny tots to girls in their teens, peering at him in the dim firelight and discussing his appearance in excited whispers. One of them, older and bolder than the rest, stepped up.

"You are the first man we ever saw, and we want to apologize for our discourtesy this afternoon."

Gan grunted, slightly irritated to be the cynosure of so many eyes, and awakened thus for mere curiosity, and slightly embarrassed as his eyes roved over the slim but womanly body of the one who had addressed him. Then he realized that here was a

source of information not so likely to be close-mouthed as the older women.

"You children are apt to get yourself into trouble if you're caught here, to say nothing of me. But now that you're here, I'll give you a few minutes. Ask me any questions you want, and I'll answer, provided you answer some of mine in return."

The lovely heads nodded soberly, like angels gathered about a bier; and Gan wondered if that weren't pretty close to the truth. One asked: "You're from the Terran worlds, where men and women are equal. It must be fun to live that way, with boys and girls together."

"It is fun," answered Gan. "They don't run about exactly as you do, but they play together, and they are very happy. Tell me, don't you ever see boys at all?"

"Never, not until mating time. That's every two years, in the Fall, when the grown women chose a mate for three months. We see some of the boys then, but we daren't play with them or talk with them." There was a wistful note in the girl's voice as she stood there unabashed. "It seems wrong..."

"It is wrong," said Gan. "The whole idea is wrong, to my way of thinking. Men and women are happier when they live together."

"The old women are strict and mean and never let us have any real fun. What's the fun of being young if you never see a boy?"

Gan's heart went out to her suddenly. Here was one girl who really needed her first kiss. All at once he felt that if it was the last thing he did on this planet, or any other, he would smash this Matriarchy and set this one, and the others like her, free to enjoy the fruits she so desperately needed.

"Where do they keep all the men on Phira, anyway? I have seen very few since I've been here."

"They keep them in a place like this on the other side of the planet, except the ones who work as servants in the homes of the officials and tradespeople. It is a place called Manoa. There all young boys are taken and must stay until they grow up."

Gan growled. "A completely unnatural arrangement, contrary to nature. No wonder your elders grow to be psychotic. So there are only servants in the dwellings in the cities? No man-and-wife teams running the homes?"

"Oh, some break the rules and keep their men at home; but they have to keep pretty well under cover and not be seen often. According to the law, mating season lasts but three months, and then the man must go back to Manoa."

"Servants and studs," growled Gan angrily, looking over the serious young faces gathered close about his bed. "A sad thing you have made of men on Phira, eh?"

"It is not us," they chorused. "We think it is a sad thing, too. But the old laws and customs are so rigid, how could they be changed?"

GAN'S EYES widened. There were more "rebels" in the Matriarch camp than perhaps even the Matriarchy realized. "On Terran worlds," said Gan, "in the olden times, they would have elected a new government, new officials, passed new laws to suit themselves. Nowadays, since the Empire has been established, this is not so easy. But it is still done. Do you know what an election is?"

"No, we don't."

"Well." Gan looked at them sharply, "it's very simple. It means that you select a number of persons whom

you'd like to govern you, then you vote among yourselves. The winner, the one with the most votes, becomes your ruler, and she then rules you according to your group desires. That way you have laws that you like, and obey willingly."

A low whistle from outside sent the girls scurrying through the door, and in an instant the cabin was as empty as before. None too soon, for the sound of boots came up a pathway, and the door was flung open. A light flashed inside, an older woman's voice asked: "Is everything all right, Terran? I thought I saw movement about the cabin."

"Everything's all right," growled Gan, sleepily. "You woke me up, is all..."

The woman shut the door and went on along her rounds. For a few minutes Gan lay idly wondering, and was dropping off to sleep again when the door was opened stealthily and a slight figure came in clumsily, bearing several chunks of wood. These she put on the fire, then came to his bedside. Her whisper was husky. "We thought you might be chilly, you being from another world."

Gan looked at her, slender and beautiful as hand-rubbed marble, her dark eyes two question marks of youthful innocence in the firelight. She stood there unabashed, and after a few seconds crept closer until her body touched Gan's hand where it lay along the side of the bunk.

"Tell me more," she whispered. "Tell me about men. We talk and talk among ourselves, but we really know so little, and it's all so confusing."

Gan bunched up his surcoat, which he had balled under his head for a pillow, so that his eyes were near level with hers.

"More talk from me would do you

little good, girl. Your problem is one that plagues all youth, and nothing but time and experience will cure your ailment."

"Then show me," she begged, her lips pouting prettily. "Just show me what a kiss is like, and what love might be when I grow old enough to mate."

GAN GASPED, but the sweet young eyes begging of him what he was not unwilling to give were too much. He reached out and tugged her angelic young face close and touched his lips to hers, or meant to. But she pressed forward, clasped him tight, and her lips were burning hot on his, her young body shivering with delight under his hands. Abruptly he pushed her back and she stood with hands clasped together, her breath panting in rapture, her eyes dewed with wonder.

"So that is a kiss! It's wonderful. Love must be wonderful..."

Gan decided to stick strictly to words from here on, and pulled up his furs close about him.

"Yes, love can be wonderful, girl, when it comes to you. And if the rule of the Matriarchy can be broken, you'll have a chance to find it, which you have precious little as things stand. It is the lack of a solution to your problem which has embittered the old women about you. If I have my way..."

"I can help you," she whispered, her eyes glowing. "They mean to kill you, soon. First they will have a meeting, and pretend it is all legal and right. But they will decide you must die, as all men must die who find their way here, so that the sanctuary will stay hidden from men."

Gan scowled and whispered: "I had guessed as much when I first set eyes upon the old shrew whom you call Mother. But what puzzles me, is what can I do about it now? There is no

way of escape open to me."

"There is a way. If you accept one of the warrior maids in marriage. The law is so worded that they cannot kill a mate. They can beat you, but not kill."

Gan smiled grimly. "I doubt if they will allow me time or opportunity for that."

"I could hide you," the girl went on in an earnest whisper. "I know this forest well, and there are places where they would not find you easily. It would take many days, and we could keep on fleeing, on and on..."

"What would happen to you, sweet one, if we were caught?"

She hung her head. "If they did not sentence me to death, they would banish me to the desert, which is almost as certain."

Gan shook his head. "I'm afraid I will have to use my own devices, little angel. Go now, and don't worry about me. My own gods will care for me where your All-Mother will not. I will be safe. Go."

The girl went hesitantly, pausing to peer back at him in the flickering firelight, lovely in her pity and concern and her innocent nudity, so that Gan's heart went out to her as his own daughter. Then she closed the door and was gone.

Gan flicked the switch on the radio device upon his belt. He knew that, on his ship, Chan DuChaille would be waiting, tubes set for supersensitivity, and would not miss a whisper.

"Listen, Chan; try to get the ship aloft unobserved, and then home on this wave until it's beneath you. Then wait. When I shut off the wave, come down with your guns peeled for trouble."

Gan repeated the message a half-dozen times, at intervals of fifteen minutes. Then he drifted off to sleep much easier in his mind.

IN THE morning Gan Alain was awakened by the voice of Aphele, calling from outside. Gan slipped on his boots, opened the door to her. She had removed the masculine uniform with its harsh steel breast and abdomen plates, and was wearing instead a kind of sarong which left her breasts bare, and on her soft, floating hair a wreath of wood flowers gave her a dryad look of extreme attractiveness. Gan flushed guiltily at sight of her, for some reason he himself could not understand.

"It is good," said Aphele in a husky voice, "to dress as a woman and to wake a man with one's heart knocking at one's ribs. I had almost forgotten how good it could be. I give you good morning, and hope you will live the day out."

He grimaced, and she laughed, but not without worry.

"The council seems set upon your death, even though I am correct in guaranteeing your life and liberty under the normal status of a military truce. They are a bunch of abnormal old biddies, who see only evil in all men and most things related to sex."

"I may have a surprise for them," said Gan. "If they violate my neutrality; if they threaten me or take steps to execute me, I think they will find that I am not so helpless as they think."

Aphele pressed close against him, taking his hand. "Walk with me, and murmur sweet words into my ears. Gan, the forest is lovely at this time of year."

Gan moved out into the daylight, and the smell of cooking meat gave him hunger pangs. He groaned. "Aphele, never expect a man to make love on an empty stomach. And in the morning, of all times, a man cannot even be courteous until he has been fed. Do you know nothing of the

male whatever?"

She laughed and pointed. "I have built a fire, and what you smell is your meat cooking. The others will eat in their barracks, where you are not allowed. Come, or you get no breakfast."

Gan put his arm about her waist and moved toward the fire between the vast boles of the ancient trees. Her laughter and her beauty made the forest seem twice as lovely as yesterday. The breakfast she had prepared was very fine.

"You do understand the animal, man, after all, don't you?" Gan said, his mouth full of deer meat.

THE COUNCIL, called in mid-morning, was out in the open air. There were several thousand females, of various ages, gathered on the grass and leaf-mold of the forest aisles, watching the ceremonial chair placed for the Mother. Watching the twenty other women seated at a long table of planks, before which Gan stood, like a criminal before the bar, there was little doubt as to their undivided opinion.

There was little ceremony wasted on the proceedings. Aphele was called to testify, and she told the simple truth: that she had thought the council might wish to barter the ancient secret Tor Branthak sought for the freedom of Phira, and therefore she had brought this man to negotiate the deal.

Celys was called, and for the first time Gan saw the three identical women, daughter, mother and grandmother, who had played Supreme Matriarch for the hidden council for some four centuries, according to Aphele's whispered information. To Gan's eyes, they were equally beautiful, the grandmother somewhat more mature in proportions, but all three would

have been taken for young women on any other world.

Celys testified to her part in the journey, and that Gan had been instrumental in her escape, if not essential. No one spoke a word against him, at first. After the two women had spoken, Gan found himself facing the old leader across the plank table.

"It has been our custom for an age," she began, her eyes glittering out of her wrinkled face and her lips straight and thin and hard, clipping off her words with machine precision, "to slay all men who found their way to this sanctuary of womanhood. It is now proposed that the ancient customs by which we live, customs which are time-hallowed laws, be set aside; that they be set aside because of the present crisis, the downfall of Alid, the defeat of our space fleet, the inrush of alien troops into our cities. It is proposed, moreover, that they be set aside in a cowardly act of barter, a barter in which we give immortality, our greatest single treasure, to the enemy in return for a dubious promise of immunity from their avowed plan of complete destruction of the power of Myrmi-Atla. I am definitely against this proposal. But the council may decide, and I will abide by their wishes, as always."

Gan was not asked to say a word in his defense. The old woman gave the nod to the women gathered about the table, who at once began to pass little slips of folded paper the length of the table, where they were gathered by the woman at the head of the table. She copied off the total of votes upon the papers and, after a moment, arose, facing Gan, who stood at the farther end of the table. Her voice was as impersonal and empty of human concern for Gan as a voice record.

"The council has voted, and the de-

cision is death."

GAN SWUNG about, and his hand went to his belt, shutting off the self-contained power unit which energized the little wave-generator in his belt. In an instant two tall, uniformed warrior maids sprang to his side, seized his arms, thinking to hold him.

Gan was furious at the prearranged inevitability of the "trial" and the way in which it was run off without discussion or proper consideration of all the factors involved.

He twisted one arm loose from the maid on his right, seized the other about the waist, holding her between himself and the other. In two swift movements he had seized her pellet gun and ring thrower, and as the other maid reached over to strike him with the long dagger which was the only weapon she could use safely here in the midst of thousands of innocent bystanders, he inadvertently held the woman in his arms between himself and the dagger so that she thrust it into her comrade's breast.

The warrior maid sprang back at this sudden development, the bloody dagger in her hand, and her distraught face making the whole scene plain to the observers as in a drama.

Gan dropped the wounded woman, fitted a ring into the ring-thrower and faced the council table with the weapon, ready to toss the deadly fission ring directly into the midst of the council.

"We will now proceed to hold trial correctly," bellowed Gan. "Or else you can all immediately go up in the air in tiny pieces and we can elect a new council more to a man's liking. All of you not in favor may signify by remaining standing. The others, please be seated, as you see your wise old leader already doing."

It took them all of ten seconds to

get the order through their heads and resume their seats. Cap motioned with his weapon to Aphele.

"My dear lady, since you seem the only one here with human blood in your veins, will you preside in place of the old lady who prefers murder to legal procedure?"

Aphele's hand went to her mouth in sincere fear of the consequences of such an act, but Gan was adamant.

"You will note, Aphele, that the old woman has already made her seat vacant for you. Please take your place."

Aphele, knowing he had them all at his mercy with the explosive ring, capable of blowing the whole council table and all its members up in one stroke, seated herself on the rude chair of honor. After a second, she stood up again and called the meeting to order.

Under Gan's ruthless eyes, the trial was repeated, almost word for word, and the vote taken. No one man was surprised that the verdict was found to be unanimously in favor of the barter agreement, whereby the Matriarchy would give Tor Branthak the secret of their longevity for his removal of troops.

THE TRIAL and vote were quite over, and everyone was standing about wondering apprehensively what next, when the *Warspear* loomed hugely down from overhead, settling on a pillar of flame, landing among the huge trees rather neatly. Instantly out of the ship poured Gan's crew—and Gan's description to little Elvir of what a pirate looked like was fulfilled, for they looked very bold and bad, and the blasters in their hands seemed very large indeed.

They quickly disarmed the warrior women, who could not bring themselves to begin firing in the mass of people present. Gan kept the deadly

fission ring gun trained upon the group of officers who had gathered about the old leader. As soon as things looked safely in their hands, Gan gave orders to his mates.

"Take that group of females about the old hag, there, aboard the *Warspear*. Then scout around and pick yourselves wives; you'll never get a better chance. If they behave, they can make our dismal rock hangout into a home for us. I see no reason why we can't let Tor Branthak search for the secret in his own way, now that we have it. These women know what the secret is and how to use it, and we will have it merely by taking them with us."

In some twenty minutes they had secured nearly a hundred and fifty captives from among the most beautiful of the warrior maids, as well as the dozen sleek officers of the Amazon army who had clustered about their leader, and the old woman also.

Aphele went aboard willingly, while Celys and her two look-alikes, her daughter and granddaughter, had to be dragged aboard. Then the *Warspear* lifted into the sky and Gan set course for far space, where the lonely Black Rock circled about a dying sun.

IT WAS some months later when the *Warspear* reappeared over Phira. She did not land, but dropped off a life-raft, moved on out of vision.

Within the life-raft Gan and Chan DuChaile, as well as the old Matriarch who had ruled for so long from hidden Avalaon, drifted slowly to a landing upon the plateau above the city. There were still a score of Konaparian vessels cradled there, as well as fifty or more damaged vessels of Phira which had been captured and brought in. The rest of Konapar's original war-fleet had returned home, or patrolled

the skies above Phira for the chance of retaliation by some ally of Phira.

Gan and his two companions were led before Tor Branthak in his ship, in the same chamber where Gan had toasted the long life of the Phiran women.

"You traitor!" shouted Tor Branthak when he recognized the Cap. "You dare return here? I had thought you would have better sense than to put yourself in my hands again."

"Why not?" Gan said. "Wasn't that our bargain; that I would return with the secret? So, I have returned. I didn't say when, as it was a question only to be determined by events. Tell me, Tor Branthak, have you discovered the secret yet?"

Gan laughed, and after a moment the Regent laughed too. "Tell your tale, Captain. But I must warn you, for this length of time I have considered you a liar and a scoundrel who stole away with the greatest treasure on Phira."

Gan said: "No, Your Highness. I did not steal it. I needed this time to get to the bottom of their secret. I abducted the core personnel and their leader because I believed there is only one way to get the secret—your tactics of pulling out their toenails seemed too drastic, and less liable to work than mine."

"And what is your method?"

Gan drew himself up to his full height, demonstrating the magnificent manhood in him. "Your Highness, when a human being has been without a vital element of life for a thousand years, that element should prove to be a very potent persuasive force. Besides, it has the advantage of not killing or maiming them."

The Tor grimaced at him. "Had you left me *any* core personnel at all, Captain Gan Alain, perhaps I *too* might have had the means to learn

the secret. But, go on, our bargain still holds."

Gan pointed to the old lady. "I have brought her to you. She knows the secret of their long life, and will give it to you, in return for consent to return Phira to the rule of women."

Tor Branthak scowled. "A hard bargain, that, but the method might be worth it. But how explain to the men who have fought and been wounded, who have settled here on lands deeded to them? How can I give it back?"

Gan shrugged. "That is *her* price. I promised to bring her here and present it. But, if you want *my* price, I can offer you an alternative. I have learned the details of their methods, a rather simple preparation of certain reagents which eliminate the substances which cause old age from the body, thus insuring perpetual youth. I will settle for a governorship on Phira, under your suzerainty, because I think you are a man's man, so that Phira would become in effect a province of Konapar, with me as its head. I have an itch to teach these Matriarchs something about the rights of the human male."

As Gan delivered these words, the old Matriarch turned on him with a sudden fierce exclamation, as if a serpent had bitten her. She flashed a knife from her full bosom, sprang upon Gan. The knife plunged into his chest. But the point turned on the heavy leather of his corselet, and he caught her wrist, twisted until her hand released the blade.

The Tor's eyes gleamed. "I understand your itch, exactly, Captain Gan Alain. Or, as I should say, from now on, Governor Gan Alain!"

Gan whipped up the Matriarch's knife and lifted it in salute. "To my Regent's long life!" he bellowed.

* * *

SO ENDED the ancient dominance of the female on Phira; and later, on the other worlds which had come under the sway of the Matriarchs of Myrmi-Atla. But, as can be seen, if it had not been for Gan Alain and his *Warspear*, the fleet of Konapar would have been driven back by the dreadnaught of Mixar, and with their monopoly of the *secret*, the Matriarchy would have grown in time to engulf all mankind.

Today, centuries after, the methods for fighting age developed by the Matriarchs have become the common property throughout the civilized portions of the galaxy. And on Phira, the harem of the mighty Gan Alain, Gov-

ernor of Phira, in Alid, is the most famous for its beauty and talent of any in all the polygamous worlds.

The favorite of the Governor's harem is a very lovely brunette named Aphele, but the three identical beauties, Celys I, II and III are more celebrated. The woman called Elvir is also much spoken of, because of her pranks and her mischievous beauty; and so too is a slim young beauty who still remembers her first kiss, and gets as much of a kick out of each succeeding one.

And the children of Gan Alain number seven hundred and ten.

THE END

ROCKETS

CAN BE ROUGH!

THE SUCCESS of ordinary powder rockets on the battlefield as exemplified by the bazooka and by airborne planes, has made the rocket into a weapon which is fast replacing artillery. The lightness, cheapness, and effectiveness of the military rocket make it a better tool for many branches of warfare than the awkward, heavy, slowly mobile piece of artillery on wheels. What but a bazooka-rocket can turn the David-soldier into a killer of Goliath-tanks?

In spite of the fact that the rocket is not as accurate as an artillery piece, its many other qualities more than make up for this failing. The volume of fire delivered, for example, can be more smothering in terms of deadly high explosive than many batteries of bulky guns. Above all, the portability of the rocket makes it a perfect bunker and tank smasher. If foot-soldiers can get within a few hundred yards of a tank, concealed by natural barriers, they are almost certain to score a kill.

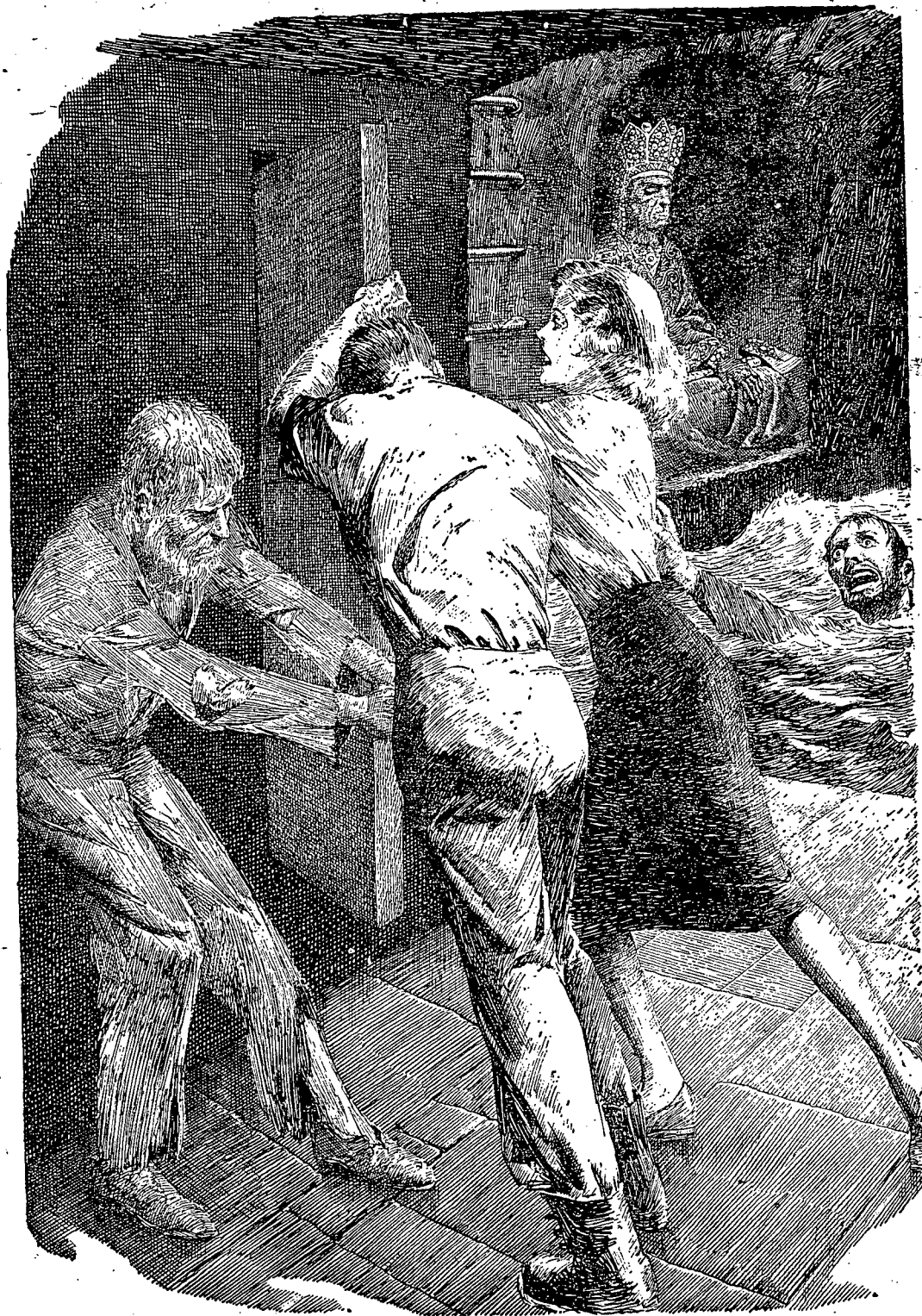
The future will see this usefulness of the rocket carried to its logical conclusion. Already the bazooka is being replaced by an ingenious type of rocket which has built into it its own launcher, so that its user need not worry about bulky tubes or igniters.

Large powerful rockets are now made with an exterior frame of thin wood or

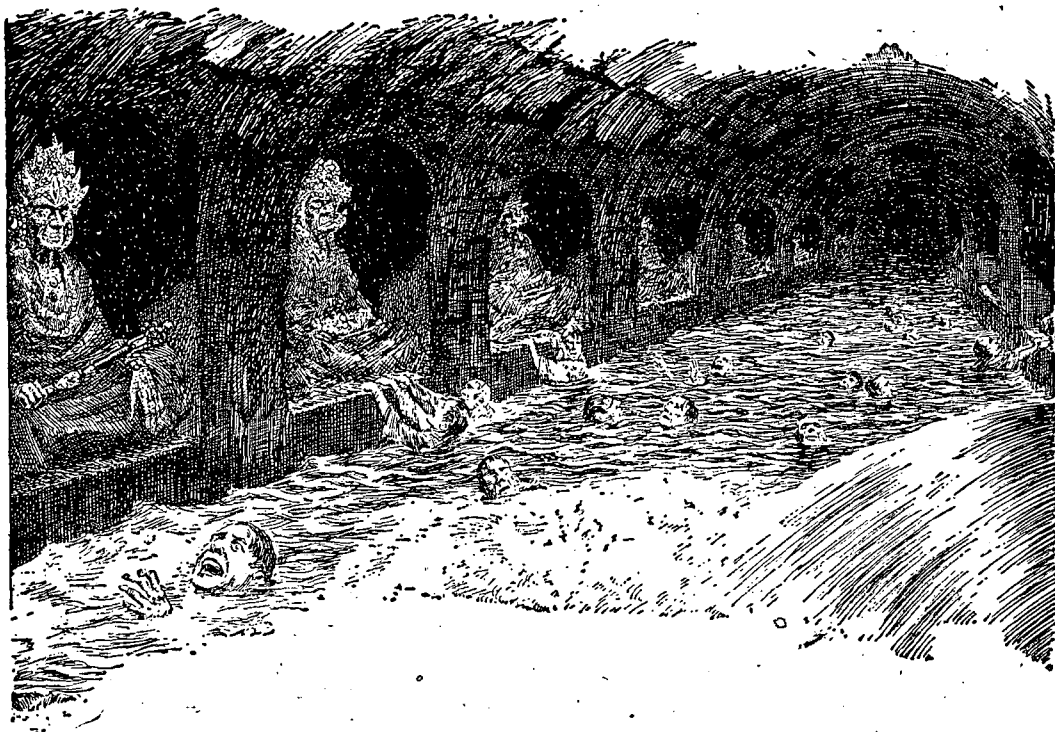
sheet metal, which serves as an aiming guide for launching the rocket. In some cases the rocket is constructed with a tiltable bottom plate much like the familiar mortar base of conventional mortars, and thus it is a completely self-contained unit. Most important, however, is the tank-killer aspect of the self-contained rocket. Here the propellants are exceedingly powerful, and the rocket so fast that, once it is aligned with the target, no matter how flimsily supported by its framework, it will cover the intervening distance with a hit almost guaranteed. The confidence a weapon like this can give a foot-soldier is amazing. And no wonder—for it makes him the equal of the biggest tank constructed or yet to be constructed.

There would seem to be a discernible trend toward making the individual count for more—in a military sense as well as a social one—after years during which the foot-soldier was subordinated to the tank and airplane. This is good: it makes for a democracy in which every man, regardless of his strength or stature, is every other man's equal. It's like the famous Colt pistol of the West, the "equalizer". The much-disputed, mysterious man of the future will be the equal of any other man—or machine!—because technology will have given him arms like this "personalized rocket".

Frederic Booth



"Hurry!" the professor panted. "If we fail, we'll drown like helpless sheep!"



COME TO VENUS—AND DIE!

By F. Willard Grey

**A beauty in distress usually finds plenty
of men ready to help her. But on Venus
you refused her quick or you kind of died!**

A GROWING roar of sound drew Greg Doyle's attention from the jet flier on which he was working. He pulled his head and shoulders out of the craft's opened engine section and peered upward over the vast expanse of the spaceport, his gray eyes narrowed in their habitual squint.

Appearing from the eternal cloud

blanket of Venus, a great space liner was dropping down on the thunderously flaming column of its jets. The ship was from Earth, Doyle saw. He lifted his square shoulders in a shrug of indifference, reminding himself that he had come to Venus to forget certain things on Earth.

But as he packed his tool kit he couldn't resist glancing at the passen-

gers who had emerged from the liner and were being jeeped past, on their way to Korremkaz, the Venusian capital, which lay just beyond the spaceport.

The people Doyle glimpsed were clean and well-dressed, obviously prosperous. People with responsibility, a goal in life. He looked at his wrinkled, sweat-soaked shirt and oil-stained flying pants, and bitterness deepened the lines of his angular, beard-stubbed face.

"A bum!" he muttered. "Financially and morally, a bum." Then he grinned wryly, thinking that few bums could boast of a string of engineering degrees after their names.

He stepped from the scaffold to one of the stubby projections that were the flier's retracted wings. From here he could reach into the open door of the cabin. He tossed the tool kit inside, gathered up his jacket and cap, and pushed the door shut. Then he swung to the ground, stretching cramped muscles in his back as he stood for a moment to survey the flier. The corners of his firm mouth quirked.

"Old tub!" The whisper held affection.

The jet flier quite clearly had seen better days. It was scratched, dented and discolored, but despite its slovenly, dissipated appearance it managed to retain a rakishly jaunty air, a quality that particularly appealed to Doyle. Most important, however, was the fact that the craft was still in excellent operating condition. That meant all the difference between independence and working at a job. If, Doyle thought, independence meant ferrying in supplies to isolated plantations in the uplands, acting as pilot on risky chartered flights, and occasionally indulging in a bit of smuggling and gun-running. He didn't intend to argue the point. It all brought

in plenty of money—money he never managed to keep very long.

Doyle was wheeling away the scaffold when he became suddenly aware of figures beside him.

"You are Gregory Doyle?" a strange, hissing voice asked, above the background noise of the spaceport.

DOYLE TURNED slowly, gray eyes narrowing in a squint as they always did at anything interesting or unexpected. He found himself looking at two Venusians, startlingly man-like in shape, with leathery, greenish-bronze skin. Both were of a pattern, massively hulking, their mouths hard and their protruberant eyes arrogant. They wore the usual kilts, but their harness and gleaming headpieces were those of minor officials—special police agents.

The Venusians had been little more than barbarians when the first Earthmen had arrived among them. In the distant past they had reached a high level of culture, but natural catastrophe as well as their own warlike natures had led to degeneration. The coming of men from Earth virtually had meant being presented with civilized knowledge and luxuries on a silver platter. To their credit, however, the Venusians had made incredible progress. Currently they were self-governing to a large extent, though Earthmen still held the reins in matters directly related to their colonization and exploitation of Venus.

It was no secret that the Venusians chafed at these last restraints, desiring the additional power and affluence which were being withheld from them. But on Earth it was almost unanimously admitted that the Venusians were not yet ready for complete autonomy. Their warlike traditions and habits were still dominant beneath their civilized veneer. For this

reason certain scientific knowledge was also being withheld from them—especially that regarding atomic energy and weapons. The blood-thirsty ferocity of Venusian attacks against the first human settlers had not been forgotten, and men were cautious about putting a nuclear club in Venusian hands.

Doyle's mind was working swiftly, a band of tension tight around his chest. Smuggling wasn't a serious crime—according to Venusian law, which mimicked that of Earth with often comical results—but had he slipped up somewhere? He knew he couldn't afford to pay a fine just then, and that meant going to jail. Venusians just loved to get Earthmen in jail. It gave them the chance to work off their pent-up inferior-race feelings.

Doyle asked quietly, "What do you want?"

THE VENUSIAN who had originally spoken had a purple scar on one muscular cheek. He was evidently the leader of the pair. His companion, a closer inspection showed, ran more to brute strength than intelligence.

Purple-scar was scowling. "I asked if you were Gregory Doyle."

"That happens to be my name."

"Then why did you not admit it at once?"

"My question was an admission."

"I do not like to be answered with questions!" Purple-scar snapped.

"So you don't like it," Doyle said. He met the other's angry stare calmly and fingered a yellow *okka* cigarette from the pack in the breast pocket of his shirt.

"Insolent *Kazko*, eh?" Purple-scar demanded, glancing at his companion. *Kazko* was a Venusian term applied to Earthmen in a derogatory sense.

Doyle shrugged. "It's your party. Either tell me what you want, or I'm

going to my hotel. I'm tired and can use some sleep."

"Not so fast, *Kazko*! You will be wise to answer my questions. Now, do you often hire out your flying craft to those who wish to go on special flights?"

"Quite often."

"To anyone who wishes to hire it?"

"That depends on what I'm supposed to do...where I'm supposed to fly."

"But for enough *guras* you will do anything, fly anywhere, eh?" Purple-scar asked slyly.

Doyle spread his hands. "I'm in business for profit, you know. Mind telling me what all this leads up to? You want to hire my ship?"

"Great Zut's claws!" the Venusian hissed. "I do not want to hire your ship, *Kazko*! I am here to tell you not to hire it out until further notice."

Doyle squinted. The cigarette became motionless half-way to his lips. Finally he said, "By whose orders?"

"The orders of persons who will cancel your flying permit if you do not obey."

"Persons in the Venusian government, in other words."

"Important ones," Purple-scar admitted. "You are under Venusian authority in this matter, *Kazko*, do not forget that. It should now be clear that you had better cooperate."

DOYLE DREW thoughtfully on his cigarette. He suspected that politics—the ham-handed and often bloody Venusian type—was involved. He didn't try to figure out how or why just then. What mattered most at the moment was that his means of livelihood was in danger of being cut off. Not permanently, but the phrase "until further notice" might mean the same thing.

"This order," he said at last. "It

applies to anyone who might want to hire my ship?"

The Venusian with the scar hesitated, his protuberant eyes liddingly. "Certain persons, *Kazko*."

"Only an Earth woman," the other Venusian abruptly put in. He grunted in pain as his partner jabbed an elbow into his side.

"Muzzag, you fool, didn't I tell you to keep your mouth shut?"

Muzzag's thick lips drooped sullenly. "Why talk and say nothing? Let us get this task over with."

"Zut curse you, be silent!"

Doyle smiled grimly. It seemed he wasn't supposed to have been told too much, merely given blanket orders. Muzzag had clumsily tipped the hand of his unknown superior.

Doyle said, "So an Earth woman is the only one I'm not supposed to hire my ship to?"

Purple-scar jerked his bulky shoulders in obvious fury. "An Earth woman, yes. A girl, to be exact. Young, pretty, according to Earth standards. Under no conditions are you to fly her anywhere. Do you understand, *Kazko*?"

Doyle shook his rumpled brown head. "To tell the truth, I don't."

PURPLE-SCAR thrust his scowling face close to Doyle's. He said with menacing deliberation, "But you understand that your permit can be cancelled? You understand that certain important persons could also see to it that something... unpleasant happened to you?"

Doyle blew smoke slowly from his nostrils. He said nothing.

Purple-scar straightened, his wide mouth twisted in a sneer. "You have been warned, *Kazko*. Conduct yourself accordingly." Turning, he shoved his companion roughly into motion, and they strode away with the arro-

gant swagger that was a mark of their profession.

Doyle watched them go, squinting. What did it all mean? An Earth girl seemed likely to hire his ship. Certain persons in the Venusian government wished to prevent it. Persons, it was evident, so highly placed in authority that they could issue orders through special police agents.

But what was this mysterious Earth girl's purpose? Why should important government officials want to oppose her? And above all, why should they take such a secretive means of doing so?

Doyle shook his head. It didn't make sense. Only one thing seemed clear: helping the girl would mean the loss of his flying permit—and worse, if Purple-Scar was to be taken seriously. Doyle didn't like the idea of losing his permit. He had worn himself a comfortable rut in this part of Venus, and starting over again somewhere else wouldn't be easy.

Besides, he told himself, no woman was worth the trouble. He had gone into exile to nurse the wounds one had inflicted—wounds that even yet hadn't quite healed.

He shrugged and started toward the spaceport exit. He was going to his hotel. He needed sleep. If the girl showed up, he'd inform her she could go to blazes.

DOYLE HAD just clutched Purple-scar by his harness, pulled him forward, and swung a crashing blow against the Venusian's jaw. His knuckles produced a flat, rapping sound. That was wrong, somehow. And what was worse, the rapping went on even after Purple-scar dropped with satisfying limpness.

Grappling with the problem, Doyle struggled up from sleep. He realized that someone was knocking at the door of his room.

He sat up on the bed, suddenly wide awake. "Who is it?" he called out.

"I...I want to speak to Gregory Doyle."

Doyle squinted into the darkness. That had been a girl's voice. Was it the girl he had been warned against?

"Just a minute," he called back. He swung out of bed and switched on a light. A quick glance at his watch showed he had been asleep several hours. It was early evening, according to the Venusian day.

Doyle dressed hurriedly, then unlocked the door and swung it open. He stared, a name rushing to his lips. But in the next instant he saw he had made a mistake. It wasn't the same girl—the girl he had come to Venus to forget. There was the same auburn hair, the same pert nose and creamy skin; but this was a different girl. The past was to stay buried after all.

Doyle got himself under control. "I'm Greg Doyle," he said. "Will you come in?"

The girl nodded hesitantly, and he stood aside as she went past him, into the room. She stood in the middle of the floor, stiff with unease, watching him. He gestured at the only chair, and she seated herself gingerly, her hands twisting at the small accessory case in her lap.

She seemed aware, Doyle thought, that visiting a strange man in his hotel room wasn't exactly the thing to do. He felt a grudging admiration for her. Whatever the purpose that drove her, it had taken a special brand of courage to come this far.

He saw that she was looking around the room, at the bare walls, the cheap furniture, the carelessly scattered clothing; at the table, with its overflowing ashtray, litter of newssheets, and half-empty bottle of *keth* liquor. He felt a surge of defiance. Just a cheap hotel room, kept none too neat,

but it was home to him. What did he care for what she thought?

Doyle took a cigarette from a pack on the table and sat down on the bed.

The girl said abruptly: "I was told that you often hire out your jet flier on chartered flights."

Doyle blew a cloud of smoke and nodded. Her eyes were brown, he saw, steady and direct. Her features were small and even, holding vivacity and humor instead of just the empty doll-like prettiness of the girl she so startlingly resembled. She wore a hooded cape over a mannish blouse and flaring, knee-length shorts. On Venus, clothes for women tended to be practical rather than decorative.

The girl went on, "I want to hire your flier, Mr. Doyle. It's very important, and money is no object—up to a certain point, at least. My name," she added as an afterthought, "is Edith Bancroft."

"Where do you want to go, Miss Bancroft?" Doyle asked.

"To a certain valley among the Titan Mountains."

Doyle winced. The Titans had to be seen to be believed, and with cloud conditions on Venus what they were, they seldom if ever were seen. Numerous peaks in the Titan range towered up well over forty thousand feet. Pilots preferred to keep away from the Titans. More than one had come to grief among that maze of incredibly soaring pinnacles.

SEEING HIS hesitation, the girl said, "I think the valley is well within the cruising limits of your flier, Mr. Doyle. It isn't too far from Korremkaz—that is, it doesn't look far on a map."

"It isn't that, Miss Bancroft. The Titans are...well, pretty rugged. It might be impossible to land a flier in this valley you speak of."

"I understand that the valley is quite large, and almost level in the center," she returned. "You see, I happen to know a little about it."

Doyle rubbed his whiskery jaw, wishing he had taken the time to shave. He squinted at the girl, wondering how long he could keep getting information out of her, without in turn definitely committing himself. He made the mental reminder that he was interested in her problem only as far as it shed light on Purple-scar's warning.

He said, "I can hardly hire out my ship without knowing exactly what I'm getting into, Miss Bancroft. May I ask why you want to visit this valley?"

"Because of my father," the girl said. "You may have heard of him—Milton Bancroft, the archaeologist. He's an authority on the Aztols, you see, an extinct Venusian race that reached a level of culture comparable to that of the ancient Egyptians on Earth. There are some Aztol ruins in the valley, known only to Father and a few other men in his field, and he went to study them. That was quite some time ago."

"Since there is a large element of risk involved in his work, Father and I had an understanding that he was to get in touch with me after a certain amount of time had passed. When I failed to hear from him, I knew something had happened. I tried to get the Venusian authorities to investigate, but for some reason I received only polite evasions. Finally I decided to come here and make a search of my own."

"How do you know your father is still in this valley?" Doyle asked.

"I'm not certain, but I want to look. The valley would be a good place to start. A search there might show what happened to my father, or where he went."

Doyle shook his head. "Evidently you don't know what it's like among the Titan Mountains, Miss Bancroft. Finding this valley of yours might be an impossible job."

"But I have a map that shows exactly where it is." The girl searched quickly through her accessory case. "Here. It's a copy of one that Father had."

Doyle took the white square of paper that she unfolded and handed to him. The map was neatly and carefully drawn, distances and directions clearly detailed. Locating the valley wouldn't be such a difficult job after all, he decided. But so what? The girl's part in the mystery was explained, and that was all he cared about.

STILL, THE oddness of the situation gripped him. All the girl wanted was to be flown to a valley among the Titan Mountains, to search for her archaeologist father. What was so important about this that persons high in the Venusian government should wish to stop her?

Edith Bancroft said eagerly, "As you can see from the map, the valley won't be hard to find. And it isn't too far from here. We could start out in the morning."

"I haven't said I was going to fly you there, Miss Bancroft," Doyle pointed out.

"But...you won't?"

Doyle spread his hands. "I'm sorry. For certain reasons, I just can't do it."

"Oh." The girl's whisper held utter hopelessness. She looked down at her hands. Her eyelids worked desperately, but in another moment tears slid down her smooth cheeks. She made no sound or movement. It was as though she were too far gone in her despair.

Doyle shifted in discomfort. He said

soothingly, "You can find someone else to help you, Miss Bancroft. My flier isn't the only one, you know."

Her head jerked erect. "But that's just it! I've been here a week, and I've already seen everyone else. They all turned me down. Then I heard that you returned today from a long flight. I came to you as a last hope."

Doyle squinted. "Everyone turned you down?"

"Yes. I can't understand it. The people here seem against me for some reason."

"And the Venusian authorities turned you down?"

She nodded earnestly.

"Who did you talk to?"

"Takkom Guriz, the Minister of State. I had gotten in touch with him early in my efforts to learn what had happened to Father. When I came to see him personally, he told me the same thing he'd told me in his messages—that Father was certain to have left the valley, and that a search for him among the mountains would be hopeless. He also warned me of savage tribes and dangerous animals in the mountain regions. He was polite enough, but I got the impression that he was deliberately trying to discourage me."

Doyle's interest rose. Takkom Guriz, it appeared, was behind the persons in the Venusian government who sought to prevent Edith Bancroft's search. The revelation somehow wasn't much of a surprise. Guriz seemed to be involved in just about everything. In addition to being Minister of State, he was enormously wealthy, his control reaching into every part of the planet. It was rumored that Guriz was the real leader in Venusian political affairs, the emperor being a mere figurehead. Doyle knew that Guriz was ruthlessly ambitious and would stop at nothing to achieve his ends.

WHERE EDITH BANCROFT was concerned, Guriz seemed to be taking great pains to keep her from searching for her father. Doyle knew now that he hadn't been the only pilot warned away from the girl by Purple-scar and Muzzag. But what was Guriz' motive? Whatever it was, Doyle decided, it was something big. Guriz was the sort that played for high stakes.

Edith Bancroft rose slowly to her feet. "I'd better be leaving, Mr. Doyle. I'm sorry to have troubled you with my problems."

"Sit down," Doyle said gruffly. "I've changed my mind. I'm going to fly you to the valley and help you look for your father, after all."

The despair in her face vanished. Relief flooded into it, a relief so great that she seemed unable to speak at once.

Doyle tried to ignore her wordless gratitude, unwilling to face what he considered proof of his own weakness. He told himself he wasn't going to help the girl because he felt sorry for her, or because she looked so much like another girl he had known. He was going to do it because there was a mystery involved that drew him like a magnet. It was a satisfactory explanation for an act he knew was foolhardy. But it left him with a guilty feeling.

He said, "Now, since I'm going to help you, we'll have to be careful. You were right about Guriz trying to discourage you. This afternoon, when I returned from a flight and finished checking over my ship, two special police agents showed up and warned me not to hire out again until further notice, or my permit would be cancelled. It developed they had only one person in mind—an Earth girl."

Edith Bancroft looked suddenly dismayed. "Then helping me means that—"

Doyle waved a hand. "I can always take care of myself. The important thing is that someone high in the Venusian government was behind those two special police agents. What you told me about Guriz, added to what I know about him already, indicates that he's the one. For some reason he doesn't want you to visit that mountain valley in search of your father. He took the trouble to scare off all the pilots who were in a position to help you. Why? What's his motive? That's what I intend to find out."

HE BLEW a cloud of smoke, squinting through it at the girl. "So if Guriz learns I've decided to help you, he'll try to stop us. Cancelling my permit isn't all he can do, either. He mustn't learn of our plans until we're out of reach.

"Here's the trick we'll use: You're to pretend I've turned you down and that you've lost all hope. Sit around your hotel for the next two days, as though undecided about your next move. That will give me time to put my affairs in order and arrange for the flight. On the morning of the third day, check out of the hotel and take a cab to the spaceport.

"You'll be followed, of course. But at the spaceport building you're to go to a washroom and change clothes. The idea is to disguise yourself as completely as you can, yet to wear something that will be an identifying mark. A friend of mine will be watching for that mark. He'll take you in his helicar to a spot outside the city, where I'll be waiting with my ship. I'll have left the spaceport a considerable time before, so there won't be any suspicion that our paths might cross.

"As for Guriz' agents who'll be following you, they'll think you somehow boarded a liner without being seen. With the crowds at the space-

port what they are, that could happen easily enough. At least the agents will report it that way, not being willing to admit you might have given them the slip."

Edith Bancroft nodded quickly. "I understand. And the time, the identification I'm to use?"

They discussed the interior details of the plan Doyle had outlined, and then the girl rose to leave.

"I don't know how to thank you, Mr. Doyle. You're making things very difficult for yourself by helping me."

"Forget it," Doyle said. "Some men live only for a little trouble now and then. I guess I'm one of them."

She went to the door. With her hand on the knob, she paused. "May I ask you a question? A rather personal question?"

"Go ahead."

"When you first saw me, did you think I was someone else?"

Doyle squinted. "What if I did?"

The girl said nothing. She looked around the room, and then back at Doyle. He felt suddenly that she had seen through him and into his past.

She said softly, "In three days, then. Good night, Mr. Doyle." The door closed behind her.

Doyle swore under his breath. Clever little devil! She seemed to have guessed that a woman was the cause of his present condition. He uncorked the bottle of *keth* and drank until his throat burned. But the liquor couldn't take the bitterness of old memories out of his mouth.

DOYLE SAT on one of the extended wings of the jet flier in the moist, gray Venusian morning. His clothes were spotlessly fresh, he was shaved, and his hair was trimmed. In one hand he held a length of branch, in the other a small, slim energy-knife. He hacked viciously at the purple

wood with the pale-blue, six-inch "blade", muttering to himself.

"You're a fool, Greg Doyle!" he accused, and a wooden shaving flew. "A blasted, space-crazy fool! What if she *does* look like Rita? What if she obviously *is* a thousand times finer than Rita ever was? You've stuck your neck out—and the axe is certain to fall." By way of example, the energy-knife carved away a large piece of branch. "And for what? She can't be interested in you. You're only a bum—even if you *do* have a string of engineering degrees after your name."

The jet flier rested on a long, narrow tongue of rock in an uninhabited strip of swampy land a considerable distance from Korremkaz. Huge trees grew all around, their interlaced branches forming a screening canopy overhead, yet with sufficient gaps to provide entry and exit for craft of a certain agility and size. The spot was well known to persons who would not have cared to have their activities subjected to close scrutiny by police authorities, human or Venusian.

An occasional craft whistled by overhead, following invisible guiding beacons through the fog. Each time Doyle squinted upward expectantly. At last a helicar came darting through a space among the surrounding trees, jet-tipped rotors whirling. It dropped lightly to a landing on the tongue of rock, and two figures emerged. One was a girl.

Doyle sighed in relief and felt the tension of the past several hours suddenly leave him. He pressed a tiny button to extinguish the "blade" of the energy-knife. Thrusting the device into the top of one of his light neoplast boots, he lowered himself from the wing.

EDITH BANCROFT looked eager and vivid. She had cleverly altered her appearance with makeup, a

different hair arrangement and style of clothing. At a casual inspection, from a distance, she would not easily have been recognized. She had evidently managed to hoodwink Guriz' police agents. Her only luggage was a small bag.

Doyle gave the girl an impersonal nod and glanced at the man who accompanied her. "How'd it go, Jerry? Sure you weren't followed?"

Jerry shook his coppery, thatch. "Positive, Greg. I kept my eyes open all the way. It was an easy job with Miss Bancroft along, though," he added gallantly. "Too bad you didn't pick a spot further out than this."

Edith laughed. "Jerry flew slowly enough to make up for that."

Doyle asked, "Where's the rest of your luggage?"

"Jerry's going to take care of it for me until I send him word about where to forward it."

"Fine. I'd overlooked that angle. Well..." Doyle extended his hand. "We'd better be hitting the clouds. This is fast-jetting, Jerry."

The other sobered. "Fast-jetting, Greg. Let me know where you settle down again, afterward."

"I'll do that."

Edith made her own farewell, and then Doyle took her bag and they turned toward the flier. He helped her inside and buckled on her g-straps. Then, stowing away the bag, he slid into the adjoining seat.

Jerry, in the helicar, took off first, to avoid the flier's blast. Then Doyle sent the craft shooting up into the clouds, g-pressure a sudden giant hand against his body.

They were suddenly in the gray mist-ocean, thick and featureless, that was the eternal cloud blanket of Venus. Nothing could be seen of the terrain below, but Doyle was a veteran of countless trips through the cloud layer. The flier's instruments

and radar eyes told him everything he needed to know. The result was the same as if he'd had full visibility at every angle.

LIKE AN amphibian of metal, the flier hurtled through the cloud-ocean, jets roaring. Patterns appeared and vanished in the radar screen. On the instrument panel lights glowed, died, and glowed again. Needles crept over dial faces.

"The map," Doyle said presently.

Edith pulled the folded sheet from somewhere within her clothing. Smoothing it out, she extended it to Doyle. He took it without glancing at her, and was conscious of her eyes on his face as he studied the directions.

Finally Edith said, "Was that a very personal question I asked?"

"Forget it," Doyle grunted. He examined the map a moment longer, then checked his instruments.

He said, "You got away without any trouble, then?"

She shook her head. "The plan worked perfectly. They most probably were certain I'd given up all hope."

"Guriz get in touch with you?"

"No."

Doyle nodded and returned to watching his instruments. These and the radar screen told him that the Titans were shouldering massively into the cloud-ocean, ahead, thrusting their impossible bulks a full ten-thousand feet higher than the highest peaks of Earth.

With delicate care, Doyle began altering the flier's course. Two monster peaks loomed directly before the craft, and he guided it through the cleft between them. They had passed over the Eastern range, he knew, and were now moving toward the Central Range. The Western Range lay just beyond this latter.

According to the map Edith had given him, the valley that was their

objective lay somewhere amid the peaks of the Central Range, almost at the point where the three ranges radiated outward. There were few spots more tumultuous and desolate in the entire Titan region. The ancient Aztols apparently had built their cities there before a cataclysmic upheaval of the crust of Venus had sent the Titans rearing skyward.

Edith had grown tense with expectancy, watching the radar screen. She seemed to have gained understanding of the shifting patterns. Abruptly she pointed.

"There! That looks like a detail drawn on the map."

DOYLE NODDED and changed course again. He sent the flier moving parallel to the gigantic buttresses of the Central Range, then cautiously angled downward out of the clouds and into the enormous trough between the Central and Eastern ranges. The trough narrowed, and then, among the precipitous slopes of the Central Range, Doyle saw a deep valley, within which was the silvery oval of a small lake.

He swung the flier toward it, excitement kindling in him. The valley drawn on the map contained a lake, but he wasn't certain as yet that he and the girl had reached their destination.

The valley grew in size and detail, its enclosing walls towering up on all sides. In another moment Edith was pointing tensely.

"There are buildings down there! Ruined buildings."

Doyle squinted, nodded. "They check with the position of the ruins drawn on the map. This is the place, all right."

He circled the flier over the valley. Near the center, along one side of the little lake, the ground was level, as Edith had said it would be. He ma-

neuvered the flier into line with the strip and sent it gliding down to a landing.

"Here we are," he said. "Now to see what there is to see."

He unfastened his and the girl's straps and climbed from the flier. Edith jumped down beside him, and for a moment they stood gazing about them.

Abruptly Doyle stiffened, releasing a startled sound.

"What is it?" Edith asked.

"Buildings! Down there, at the other end. And they're modern structures, not ruins."

The nose of the flier pointed toward the near end of the valley. The Aztol ruins started here, arranged in a great semi-circle, facing the lake. Opposite the ruins, at the valley's far end, stood several large featureless buildings, with somewhat the same number of smaller structures grouped around them. All were colored in shades of brown, gray and green, blending almost indistinguishably with the hues of the valley wall, beyond.

"Why, we didn't notice them from the air!" Edith said. "And even here you have to look closely before you can make them out."

"They're camouflaged," Doyle said. "And it's a good job—done by experts."

"What do you suppose they're for?"

"I don't know. But I have the idea those buildings are the reason why Takkom Guriz didn't want you coming here to search for your father."

"There must be people living—" Edith broke off, clutching Doyle's arm.

THREE VENUSIANS had leaped suddenly from behind an ancient stone building almost directly opposite Doyle and the girl. They came running forward, their electro-rifles pointed in silent menace. In another mo-

ment two more figures appeared. The group evidently had made its way from the far end of the valley behind the concealment of the ruins.

Doyle cursed inwardly. He and the girl had flown straight into trouble. Had been caught flat-footed! Discovery of the camouflaged buildings should have warned him; but the arrival of the Venusians had followed too soon.

He felt Edith's fingers tighten on his arm. Her voice reached him in an anxious whisper.

"What do you think this means?"

"We'll find out soon enough," Doyle returned. "I'll do the talking. Don't act surprised at anything I say."

Doyle suddenly realized that only the first three figures were Venusians. The remaining two were Earthmen. The Venusians he dismissed as relatively unimportant. They obviously were underlings of some sort, most likely guards. It was the other two men with whom he would have to deal. One was tall, blond, and heavy-set, the other slight of build, with a sharp, shrewd face and grizzled dark hair. Both held weapons and were breathing heavily, out of breath from their run.

"Who are you?" the sharp-faced man demanded between gasps. "What are you doing here?" He spoke with a noticeable accent.

"I operate a private air service," Doyle explained with the readiness of one who has nothing to conceal. "My name's Doyle. Miss Smith, here, is an archaeologist. She wanted to examine the ruins in the valley, and hired me to fly her here."

The sharp-faced man glanced at Edith. "How did you know where the valley was located?"

The girl shrugged. "I had no idea it was supposed to be a secret. The location is known to several others in my field. We're all interested in the

ancient Aztols, you see. I hope I haven't done anything wrong by coming here."

Doyle nodded. "I didn't know this was restricted territory. Miss Smith and I will leave immediately, if you say so."

"Not so fast, my friend!" the sharp-faced man barked. He gestured with his weapon at the three Venusians. "Search them."

THE VENUSIANS found no weapons or anything else out of the ordinary. Sharp-face looked disappointed.

Doyle took a deep breath and relaxed. The energy-knife in his boot had gone undiscovered. But there was an automatic in the flier which he had kept out of sight so as not to worry Edith.

Sharp-face didn't overlook the flier. His next order sent one of the Venusians on a search of the craft's interior. The native appeared shortly with Edith's bag and the automatic.

Sight of the weapon brought no visible reaction from Sharp-face. Evidently the fact that Doyle hadn't been carrying it made it unimportant. An examination of Edith's bag produced nothing more illuminating than a large neatly wrapped lunch and various feminine articles.

Doyle said, "Well, if you're convinced that Miss Smith and I weren't deliberately trespassing, then you can't have any objection if we leave."

Sharp-face shook his grizzled thatch emphatically. "Allow you to leave and tell others what you saw here? Oh, no, my friend, I'm afraid not."

Doyle squinted. "But we didn't see anything. At least, nothing that we understand. You haven't any right to hold us, as far as I know. What's going on here, anyway?"

"Never mind," Sharp-face grunted.

"And if I choose to detain you, that's my affair."

Doyle looked slowly at the grimly alert figures before him and lifted his shoulders. "Since you enforce your hospitality with guns, I don't suppose I can refuse. But just what do you intend to do with us?"

"That remains to be seen." Sharp-face jerked his weapon toward the buildings at the far end of the valley. "We will now return. You and the lady will lead the way—and do not be so foolish as to attempt resistance."

Edith glanced up at Doyle as they started into motion, her small face worried. He smiled a reassurance he didn't feel.

Inwardly he was drawn and cold. They'd flown into something, all right. Exactly what, he didn't know. The buildings toward which they were walking gave no hint of their purpose. But one thing seemed clear enough: Sharp-face had no intention of releasing them.

THEIR PROGRESS paralleled one sprawling wing of the Aztol ruins. The ancient city hadn't been a large one. Doyle estimated there couldn't have been over a hundred buildings in all. One in particular held his attention. It was a sort of pyramid temple, standing near the edge of the lake. A stone ramp led up to it, almost grown over with vegetation. The other buildings were more or less box-like, rising in terraces along the sloping base of the mountain wall.

The mysterious camouflaged structures ahead began to loom closer, their details growing more distinct. There was nothing decorative or ornamental about any of them. They were severe and utilitarian, apparently having been designed to work in and nothing more.

Doyle squinted as presently he made out a road or path at the far end of the valley, running from the

camouflaged buildings to a number of cave-like openings in the mountain wall, beyond. Figures—Venusians, he realized—moved along the path in both directions, pushing hand carts.

The camouflaged buildings seemed the hub of some sort of mining activity. But, Doyle thought, what could the occupants of the valley possibly be mining that required such secrecy?

Sharp-face suddenly spoke: "Turn toward the building to your left."

Doyle saw that he and Edith had reached the first of the camouflaged buildings, a long shed-like structure, before which stood two Venusians with electro-rifles, obviously on guard.

"This is where we keep unwelcome guests," Sharp-face told Doyle. "You and Miss Smith will remain here until we decide what is to be done with you." He smiled thinly. "Since accommodations are limited, it seems you will have to be kept together. Unfortunately, Bruhl and I cannot entertain Miss Smith as we have more pressing duties."

"Perhaps it could still be arranged, Starkhov," Bruhl said, sensuous lips twisting in a sly grin.

STARKHOV, as the sharp-faced man's name appeared to be, shrugged. "Perhaps. But not now."

"Where do you get the authority to treat us like criminals?" Doyle demanded. "As far as I know, Miss Smith and I haven't broken any Venusian laws. When the representatives of the government of Earth learn of this, you can bet there's going to be a very thorough investigation."

Starkhov's thin mouth curled. "That possibility does not worry me. Soon there will be no representatives of Earth left on Venus—nor any government of Earth, for that matter." Dismissing Doyle with a contemptuous gesture, he snapped orders at the Venusian guards.

Doyle felt his arms grasped at either side, then found himself being propelled roughly toward the shed-like building. He was shoved sprawling into a small room.

Edith was pushed in after him. She clutched her bag, which she had been allowed to keep, its contents intact.

The door closed with a slam. There was the metallic sound of a lock clicking shut.

Helped by Edith, Doyle picked himself up from the floor. She was solicitous. "Are you hurt?"

"Could have been worse," Doyle grunted, touching various bruises. "I'm going to remember this—if and when I'm able to do something about it."

The room was little more than a dozen feet square, lighted by a single small fluoro-tube in the ceiling. A few tiny barred windows, set high in the walls, provided ventilation. Furnishings were scanty, consisting of a cot and a table and a bench. A space roughly three feet square had been partitioned off in one of the rear corners, its entrance covered with a length of sacking.

"What's in there?" Edith asked, as Doyle briefly investigated the closet.

"Take a look for yourself."

She did so, retreating hastily. Her face was several shades pinker than usual.

A SOFT rapping noise broke the momentary silence. Doyle, in the act of seating himself on the bench, froze into rigidity. Within a few seconds the rapping came again. Someone in the next room, he realized, was rapping on the intervening wall.

He placed his ear over the spot. There were numerous spaces between the boards where they had not been perfectly fitted together. Edith joined him, craning over his shoulder. A

man's voice whispered: "Are you Earth people?"

"Yes," Doyle said. "Who are you?"

"My name is Milton Bancroft."

Edith's body jerked in startled surprise. "Dad!" she gasped. "Dad!"

"Edith! Edith, is that you?" Bancroft's voice was filled at once with joy and dismay.

"Yes, Dad. I came to look for you."

"Great galaxy! You shouldn't have done that, girl. Now we're all in trouble."

"But I didn't know about...about the people here, in the valley. Not until it was too late."

"Neither did I. I've been a prisoner for months. But, Edith, how did you get here?"

"Mr. Doyle brought me to the valley in his flier," Edith explained. She told of her decision to conduct a personal research, after her failure to obtain aid from Takkom Guriz. She described how her efforts to hire a private flier had met with refusals—refusals for which, as Doyle later revealed, Takkom Guriz seemed directly responsible. Then she explained Doyle's generosity in aiding her, despite the resulting loss of his flying permit and consequently of his air service business.

"That was mighty decent of you," Bancroft told Doyle. "Wish I could shake your hand. It's too bad your sacrifice has gone to waste. But you were right in your suspicions about Guriz. He's the one behind what's going on here."

"But what is going on anyway?" Doyle asked. "All I've been able to learn so far is that they're doing some sort of mining in the valley. I can't understand why that should be so important."

BANCROFT laughed shortly, bitterly. "It is important, though—devilishly important. So important

that Earth is in terrible danger. You see, what they're mining here is uranium."

Doyle whistled softly. "I get it now! So that's what Guriz is after—atomic weapons!"

"Precisely," Bancroft said. "Guriz and the others have a complete atomic plant set up here, in the valley. Starkhov and Bruhl are a couple of traitorous Earth scientists in charge of the work. There are several other Earthmen here, handling the more important jobs, while all the rest are Venusians. The whole thing is a deep secret, apparently. Guriz literally has the government of Venus in his pocket, which explains how he was able to keep matters quiet. He knows very well that Earth has forbidden atomic power to Venus and would clamp down at once if word leaked out."

"But just why does Guriz want atomic weapons?" Doyle questioned. "What is he planning to do?"

Bancroft said slowly, "I've managed to learn a great deal about that. I've been here quite a long time, you see, and was forced to work in one of the laboratories until Guriz and Starkhov decided I had learned too much and had become too dangerous.

"Guriz' scheme is slightly fantastic. But he's insanely ambitious and will stop at nothing. What he hopes to do is to destroy Earth's hold on Venus. That would give him unlimited power over the planet, something he doesn't have now. To obtain this, of course, he must first of all destroy Earth's ability to resist. And he hopes to accomplish that by beating Earth into submission with atomic weapons."

"But...but that's impossible!" Doyle burst out. "Guriz must be completely mad!"

"Maybe," Bancroft returned. "But his plan has a good chance of succeeding. Too good a chance. Consider the facts. Earth could be taken by

surprise and seriously crippled at one stroke. There would be little or no advance warning for a number of reasons. Earth isn't prepared for war and won't be expecting an attack. Least of all one with atomic weapons. The key cities and military installations of Earth could be wiped out before the authorities had time to strike back.

"With Earth powerless to stop him, Guriz then intends to take over full control of all Venus. He could organize the whole planet as a vast military base against any possibility of retaliation. But Earth's weakened condition would be an enormous opportunity to a person like Guriz, and there's no reason to suppose that he'd be satisfied with just the control of Venus."

BANCROFT'S voice grew urgent. "The attack on Earth is due to take place soon. Starkhov and Bruhl were already in production when I arrived here, and by now they must have built up a stockpile of atomic weapons great enough for Guriz to launch his offensive. They've been using Venusian natives as slave labor, working them night and day. Earth's danger increases with every passing minute. And we're the only ones with her interest at heart who know of it."

"We've got to do something," Doyle said. "Somehow, we have to make an escape. And no matter what the cost to the others, one of us has to get through with a warning."

"Escape seems impossible under the circumstances we're in," Bancroft said hopelessly.

Doyle touched the energy-knife in his boot and peered thoughtfully around the room. He quietly told Bancroft, "I think we could swing it."

"But how? We'd have to get out of here first, you know. This building is constructed of boards, but we couldn't

kick or pry them out, or do anything else that would make noise. The guards outside are always alert for trouble."

Doyle explained about the energy-knife. "We could carve an opening through one of the rear walls, then make for my flier at the other end of the valley. They'll have guards around the flier, I suppose, but we'll be able to take care of them. We could get up close by using the ruins as a screen, as Starkhov and Bruhl did when they caught Edith and me."

Bancroft's tone held sudden elation. "We can try it. The plan might work. It *must* work!"

"We'll have to wait for darkness before we do anything," Doyle said. "While it's light, someone might walk in and catch us at work. And darkness will give us a better chance to reach the flier without being discovered."

"That's right, of course."

Doyle was silent a moment. "Can you handle a flier?" he asked Bancroft finally.

"Yes. I flew here in one, you see, though I don't know what has become of it after all this time."

"Good. Your being able to fly will be useful in a pinch." Doyle fell silent again, his thoughts grim. If it came to a fight with the guards posted around the flier, one of the party would have to keep busy long enough for the others to get away. And Doyle realized that the job was his. Bancroft clearly was too old, too weakened by confinement, to be effective.

WITH TIME now an element to consider, it seemed to Doyle that the minutes began to pass more slowly. He fell to a restless pacing of the floor.

Edith spoke to her father for a while, then turned back to Doyle. She

gestured at the bag on the table. "We seem to have forgotten something. I'm hungry."

Doyle came to a stop. "Come to think of it, so am I."

Bancroft's voice sounded through the wall. "Better tighten your belts, then. We're fed only twice a day—once in the morning, and once in the evening."

"Who's we?" Doyle asked. "Are there any other Earth people being kept prisoner here?"

"No. Just a handful of native slave laborers who tried at one time or another to escape. They're too valuable as workers to kill, so Starkhov locks them up for a while and then puts them back to work. It brings results, too. Nobody hates being locked up as much as a native who has lived out in the open all his life."

Edith told her father about the lunch packed away in her bag. "On two meals a day you must be practically starved. If I could only get a package in to you—"

"Can do," Doyle said. He took the energy-knife from his boot and, tracing a particularly wide gap in the boards of the wall to its juncture with the floor, he began to widen it. Finally the hole was large enough to admit the separated parts of a food package. Doyle moved the table so that one of its legs covered the hole. Edith had carefully picked up and hidden all the shavings.

Satisfied that everything else had been done, Edith handed Doyle a package. "Soup's on," she announced with a grin.

"Remarkably condensed, I see."

Doyle hadn't talked much with the girl, but sharing the lunch brought an intimacy that encouraged speech. He found her an easy person to talk to. She somehow managed to combine frankness and humor with intelligence

and dignity. There was no coyness about her, no feminine gush or flutters.

HE BEGAN to wonder more acutely about her personal life. Probably tied to some guy, he thought. A man with any brains at all would hardly let her get away. He decided to maneuver the conversation around to the point where he could indirectly find out.

It developed that she wasn't engaged.

"I was," she said. "He had everything in the way of appearance and background—except courage: I wanted him to help me look for Dad, but he was chilled to the marrow by the very idea of the dangers and inconveniences involved." She moved her slender shoulders indifferently. "I'm glad I found out in time. The man I stick with must be able to forget himself—face anything that comes up." She looked intently at Doyle for a moment, then glanced down at her hands.

"That's almost exactly what was wrong with Rita," he said musingly.

"Oh, her name was Rita?"

"Yes." He was looking back into the past. "We hadn't been married long before she decided she didn't like following me around on engineering jobs. There were no nightclubs in most of the places we went to, no people who gave expensive parties. So finally I stuck it out alone, even though my work kept us separated most of the time.

"I'd always let her know in advance when I was returning home; she'd asked me to. But one day I got back unexpectedly. A job had fallen through, and I hadn't been gone long enough to think that the usual advance notice was necessary. I found her with...well, it was the usual

thing. What made it worse was having her call me a low-minded snoop.

"It killed something in me. I was serious about life—serious enough to have acquired a string of degrees that no real engineer needs anyway. But after that I just didn't care any more. Rita and I worked out a divorce and I came to Venus. I bummed around for a while, then bought the flier. It gave me something to do, even if it wasn't exactly safe or profitable."

Edith said softly, "And now you've lost even that."

"Maybe not. We have a good chance of getting out of here."

"Are you so certain that you had to ask Dad if he could fly?"

Doyle shrugged. "It just seemed a wise question to ask."

A SILENCE fell. They sat side by side on the cot, not looking at each other, not moving. Finally Edith reached out to cover one of Doyle's hands with her own. Her voice was low.

"Something bothers me, Greg. Did you ask Dad that question because you thought you might... might not be able to escape with us?"

"We all have a chance. Forget it."

"But if something goes wrong, you intend to sacrifice yourself. Isn't that the answer?"

"I said forget it."

"I'll try. But there are some things I'll never forget. I'll never forget a man named Greg who gives his all for maidens in distress—maybe because they look so much like an erring former wife. Greg, with a string of degrees after his name, and a squint in his eyes, who looks so nice when he's cleaned up." Her voice caught on something and tore.

Doyle swore under his breath and moved his hand out from under the soft one covering it. Then he swore

again, found her hand and buried it in the hard clasp of his larger one.

They sat wordlessly, waiting. The barred windows were darkening with the approach of night. There was the steady rhythmic sound of footfalls as Bancroft, in the next cell, paced the floor. From outside came other footfalls and a muttering in the native tongue as the guards were changed.

In the ominous quiet a distant sound grew. It quickly swelled into the roar of a jet flier engine.

Doyle had stiffened tensely, listening. "Somebody's coming to the valley," he said.

Bancroft's voice lifted behind the wall. "Greg? You hear that?"

"Yes. Know who it might be?"

"Guriz, most probably. If so, something unusual is up. Maybe about you and Edith. Starkhov keeps in touch with Guriz by radio, and he doesn't come here often."

Doyle felt a sudden chill. Starkhov had hinted that his and Edith's fate remained to be decided. If the flier's passenger were Guriz, would that be his purpose in coming? Suppose action were taken before Doyle and the others could get their intended escape under way?

HE FELT Edith's touch on his arm. He sensed that the same thoughts were passing through her mind. He drew her against him and she clung to him, taut with dread.

The flier landed. There was silence again. Silence, while minutes like centuries crept past. Then came the intermingled noises of an approaching group.

The lock clicked and the door swung open. Starkhov and Bruhl entered the room, weapons gripped in their hands. They stood aside as a third figure appeared behind them, a huge-bodied Venusian, garbed in a

splendid kilt, official mantle and headpiece. His heavy-jowled leathery features held the stamp of power and authority. Doyle knew he was looking at Takkom Guriz.

Guriz' eyes settled on Edith. His grimly purposeful expression became touched with mockery. He spoke with the hissing sound peculiar to Venusians of all classes.

"Well, Miss Smith, so we meet again. The last time I saw you, however, your name was Miss Bancroft. So confusing, all these names."

Edith bit her lip and said nothing.

In the stillness Starkhov breathed audibly. Rage and dread seemed to struggle in his sharp face. Bruhl was silent and impassive.

Guriz went on, "If Starkhov had known of your little deception, he wouldn't have placed you in such convenient proximity to your father, Milton Bancroft, the eminent though unfortunate archaeologist. In spite of this, Starkhov might have remembered that since all the persons concerned were Earth people, certain... ah... dangerous information might be exchanged."

"I have explained that I did not know of Miss Bancroft's father being in the next cell," Starkhov muttered. "I have important work to do. I cannot keep in mind hundreds of insignificant details."

"But insignificant details sometimes develop into momentous matters," Guriz pointed out. "A good point to remember, Starkhov." He turned back to Edith. "Well, Miss Bancroft, you have found your father. Are you now satisfied?"

"Leave her alone," Doyle growled. "She was only trying to do something decent. Which is more than you can say for yourself."

GURIZ surveyed Doyle with narrow-eyed interest. "Ah, Gregory

Doyle, the gallant Earthman. You would not be warned, eh? A word to the wise is reputed to be sufficient, but it seems that you would be satisfied with nothing less than becoming involved in serious trouble."

Doyle shrugged. "That's nothing compared to the trouble you'll be in if you try a sneak attack against Earth."

Guriz' fleshy face hardened. "You will speak to me with respect, *Kazko*! I am delighted that the problem presented by Miss Bancroft has been solved, but my patience has definite limits."

"So has your intelligence, if your power-mad schemes are any examples!" Doyle shot back.

Guriz stepped forward, eyes suddenly wild with rage. One of his bludgeon-like fists leaped out at Doyle's cheek. Rolling his head with the blow, Doyle managed to take most of the sting out of it. He fell into a crouch, his fists clenched and his mouth set tightly.

Starkhov crowded forward, jabbing the muzzle of his weapon against Doyle's chest. "Careful!" he warned. "Another move and you die!"

"Greg!" Edith cried, alarm twisting her face. "Don't!"

Doyle got himself under control with an effort. Guriz' calm arrogance had been hard to stomach, coming as it did on top of the knowledge that the Venusian was endangering countless millions of human lives. But Doyle was aware that expending himself uselessly would accomplish nothing.

Guriz' mouth was curled. "Your defiance is a small matter, *Kazko*. Your death and that of Miss Bancroft and her father has already been arranged. I shall generously overlook your last actions while alive. To keep you here indefinitely would be too troublesome,

while temporarily it would be too much of a risk. My preparations are almost complete, and I shall take no chances at this point. Very soon, I shall see your insolent race humbled—as it has humbled mine!”

GURIZ PAUSED, studying Doyle and Edith with a malicious smile. “No doubt you will be interested in the means by which your deaths are to be brought about. The mine here in the valley is quite extensive, and certain portions of it, I understand, are unusually deep. You are to be taken to one of these spots, after which the tunnel is to be sealed up by explosives. Your fate will never be discovered by Earth authorities—and I will be at liberty to follow my plans without the risk of interference.”

Doyle asked tensely, “Just when is this supposed to take place?”

“Immediately!” Guriz snapped.

Doyle felt Edith’s fingers tighten convulsively on his hand. He knew what was in her mind. They would have no time now to carry out their intended escape.

Starkhov said, “Immediately? I am afraid that will be impossible.”

Guriz whirled to him in swift anger. “And just why, if I may ask?”

“The tunnel system at the lowest mine levels is complex and dangerous. Only a few of the overseers know the proper route, and these at present are in a drugged state as a result of their addiction to chewing *jasht* seeds. It is impossible to keep them from indulging in this vice when not on duty. Overseers are too important to order around like slave labor.”

Guriz nodded reluctantly, scowling. “How long will it take to get one conscious?”

“About an hour,” Starkhov returned. “Even the strongest stimulants work slowly on *jasht* cases.”

“Set somebody about it, then. I want to see this business over with before I leave.” Guriz turned toward the door.

Doyle was thinking rapidly. It would take considerable time for Bancroft and himself to carve exits through the walls of their respective cells. An hour might not be enough for both, and Doyle didn’t like the idea of leaving the archaeologist behind. He spoke swiftly, before Guriz could leave the cell.

“A moment, your Excellency. I want to make a last request.”

Guriz stopped and turned, suspicious, but flattered by Doyle’s use of the title. “And what is that?”

“Since Miss Bancroft, her father, and I have only an hour more of life, wouldn’t you be generous and let us spend it together?”

Guriz scowled. “After the insulting manner in which you spoke to me, you deserve no favors of any kind.”

“I’m not asking this for myself, but for Miss Bancroft,” Doyle explained.

Edith caught the drift of Doyle’s cajolery. She added her own pleadings.

Guriz shrugged irritably. “You are all to die shortly anyway, so what does it matter?” He gestured at Starkhov. “Have the old man brought here, and then lock them up again. Be certain that the guards outside remain alert. I will not feel entirely safe until this whole affair has been ended.”

Guriz left, and Starkhov snapped orders at the Venusian guards. Presently Milton Bancroft was shoved roughly into the cell. Starkhov and Bruhl had already left. The door slammed shut, and the lock clicked.

EDITH WAS staring at her father in dismay. His clothing hung in

tatters; and his hair and beard were an overgrown tangle. He was pale and gaunt, but apparently in fairly good condition.

Sobbing, Edith flew into his arms, and he held her tightly, swallowing hard. After a moment he held out a hand to Doyle.

"This will make it official, Greg."

"And a pleasure!" Doyle grinned. He sobered. "There isn't much time. We'll have to work fast. We'll tackle the wall through the closet, over there. That'll let us out at the back of the building, and it isn't likely that the guards will be expecting anything of the sort. Working in the closet will cut down our chances of being caught, if anyone should happen to look in on us." Doyle reached into his boot for the energy-knife. "I'll start in."

Bancroft nodded. "I'll warn you by coughing in case a guard shows up and you're too busy to notice."

Doyle went into the closet and set to work with the energy-knife. The object was to cut a square opening in the wall, just large enough for him and the others to squeeze through. In practice, however, this was not easy. The boards of the wall were of tough Venusian wood, wide and quite thick. And the "blade" of the device Doyle was using did not slice like a hot knife through butter, but more like a cutting torch attacking steel.

Doyle's arms and back began to ache. His eyes watered with strain. The "blade" had to be held perfectly in line with each cut. Any wavering meant precious seconds lost, as well as a waste of the energy capsule powering the device he wielded.

At last Doyle could keep it up no longer. His hands had begun to tremble too badly from the torture of keeping them rigidly in one position. He turned the energy-knife over to Bancroft with a brief explanation of

the technique involved in its use.

SEATING himself on the cot beside

Edith, Doyle massaged his hands and arms. After a moment she took over, the touch of her fingers soothing. He watched the play of shadows over her small face, an ache of a different kind nagging deep within him.

"There isn't much time left," Edith said finally, as if voicing a fear that had been growing in her mind. "Think we'll make it?"

He nodded a reassurance he didn't completely feel. "We have a good chance."

Several minutes later Bancroft hurried from the closet, perspiration beading his forehead. His gaunt features were twisted in dismay. "The knife!" he said huskily, gesturing with the device. "The capsule's exhausted!"

Doyle shot erect, a chill flashing through him. He searched frantically through his pockets.

Nothing.

He felt sick. Were their efforts doomed to failure after all?

Then he remembered his jacket, draped over the bench near the table. Pawing hastily through the articles contained in the garment's pockets, he exclaimed in triumph.

"Thought I had a spare, but for a second or two it looked like we were finished.... I'll take over again," he told Bancroft. He slipped the fresh energy capsule into place and returned to the closet.

The minutes passed swiftly as Doyle worked. He knew the deadline was approaching. Not an instant could be wasted now.

Weariness crept back into his hands and arms, but there could be no stopping, no rest. Each board cut through added further hope for Edith and her father. Each added further hope for Earth.

FINALLY, when it seemed that he could control the energy-knife no longer, the last board was cut through. He carefully lifted it out of the opening. There was a square gap in the wall now, and beyond it was darkness—and freedom.

Doyle thrust his head through the opening, his heart racing. Had the guards at the front of the building grown suspicious? If they came around to the rear, they would hardly fail to discover the hole that had been cut into the wall. But he saw and heard nothing unusual.

Doyle joined Edith and Bancroft. "All right—out we go," he announced. He nodded at the older man. "You first. Edith next."

Doyle waited tensely as Bancroft entered the closet. There were a few faint scrapes and rustlings, then silence. Bancroft had made it without mishap.

Doyle turned to Edith. "Next."

She went to him impulsively, and for a moment he held her. Then she was hurrying toward the closet. More faint scrapes and rustlings. Silence again.

Doyle stood alone and tense, listening. He had chosen himself as the last to leave in the event that anyone entered the cell while the escape was under way. He would be able to put up enough of a fight to give the others the start they needed.

There was no alarm, no sounds of an approach. He stepped into the closet, squeezed through the opening, and lowered himself to the ground outside.

Edith and Bancroft were waiting. Gesturing for them to follow, Doyle strode toward the end of the building. Ahead, gray and spectral in the darkness, stretched the ruins.

Doyle struck out for the tangle of rocks and vegetation at the base of

the valley wall. This would offer concealment until the ruins were reached. The way was rough, and they had to move slowly and carefully to avoid tripping.

A heavy pounding filled Doyle's chest. They were losing a lot of time. At any moment now, Guriz and Starkhov would return with the awakened overseer and find them gone. The alarm would be out.

The ruins reached out slowly to receive them. Plant growth filled cracks between the ancient stone paving, but the going was easier. They set out at a trot now, stopping occasionally to climb over heaps of fallen masonry that blocked the narrow street.

ABRUPTLY Doyle halted. Between two buildings, looking down toward the lake, he saw a flashlight beam cut the darkness. He motioned for Edith and Bancroft to keep out of sight and slipped cautiously through the opening. A figure was approaching along the narrow strip between the ruins and the lake—a man, Doyle discovered. The man was alone, swinging his torch idly at the ground as he walked.

Alone. And perhaps he carried a gun. It was a possibility worth investigating.

Doyle gestured for Edith and Bancroft to remain in concealment. Then he lowered himself down to the next terrace, moving at right angles to the torch swinger's line of approach. Reaching the strip near the lake, he picked out an ambushade behind a section of stone wall and settled down to wait.

The torch swinger came on, completely unsuspecting. He passed Doyle's hiding place, whistling a tune.

Doyle reached him in a cat-like leap. His arm circled the other's neck,

choking off a possible outcry. At the same time he snatched at the flashlight, fumbled with it a moment, and switched it off. Then he bore his wildly struggling but slighter victim into concealment at the fringe of the ruins. His fist, weighted with the flashlight, swept down in a chopping blow. The man went limp.

A quick search doomed Doyle to disappointment. There was no gun.

Doyle gazed bitterly at the unconscious man. He was slim and dapper, dressed in natty flying clothes. Guriz' pilot, Doyle decided. Evidently he had gone to the other end of the valley for a look at Doyle's flier.

THERE WAS no sound from the guards at the craft. If they had noticed the abrupt darkening of the flashlight, they apparently had decided that the pilot had turned into the ruins.

Doyle shrugged and shoved the flashlight into a pocket. He turned to retrace his way back to where he had left Edith and her father. An idea flashed suddenly into his mind. Edith and the pilot were almost of the same size. Wearing the pilot's outer clothes, Edith might be able to draw the guards at the flier into a trap.

Doyle whirled back to the man and swiftly began to strip him. Then, with the pilot's clothes slung over his arm, he climbed rapidly to where Edith and Bancroft were waiting.

Edith asked, "What were you up to, Greg? I was worried sick."

"Thought the fellow I saw might have a gun," Doyle explained. "He didn't. But I think I got something almost as good." He extended the clothes and outlined his plan.

She grinned. "So I'm to be the bait for a trap, is that it?"

"Check. It's a little risky, though. If the guards make a move with their

rifles, duck quick. But I'm pretty certain they'll bite. They saw the pilot only a while ago, and won't have any reason to be suspicious of what they'll think is him showing up again."

"It's worth the risk." With the clothes, Edith stepped around the side of a building. Shortly there followed rustling noises as she changed.

Bancroft asked, "What's our part in the plan, Greg?"

"There can't be any more than two guards. We'll hide behind the ruins near the flier, and when they follow after Edith, we'll jump them and knock them out with rocks. It's as simple as that—provided the guards think Edith is Guriz' pilot and are curious enough to see what she wants."

Presently Edith appeared. The flying clothes fitted her well enough for the purpose they were to serve.

"All right, let's go," Doyle said. "And hurry. We've lost a lot of time."

THEY RESUMED their progress through the ancient Aztol city at a trot, slipping on loose rubble, leaping mounds of debris. The flier drew closer, until at last it was on a direct line with their position among the ruins.

Doyle peered through the darkness at the silvery shape of the craft. Two dim figures showed against it. He nodded in satisfaction; his guess had been right, then. He gestured to Edith and Bancroft and began descending the terraces toward the strip.

Doyle and Bancroft placed themselves on each side of a gap between two buildings at the bottom. Then Doyle handed Edith the flashlight. She hesitated a moment, stepped through the gap. Turning on the torch, she pointed it first at the guards, then at her clothes.

"Come here!" she called.

The guards straightened into startled alertness, clutching at their rifles. In the next moment they relaxed as they recognized the clothes Edith wore.

"What do you want?" one of them called back.

"Come!" Edith said.

They started forward, rifles cradled casually in their arms.

From the other end of the valley came a shout. Voices followed it, rising into a confused babble of excitement. Flashlights began stabbing the darkness. Someone yelled an order, and silence came. In the silence a voice called across the valley.

"Flier guards, be alert! The Earthling prisoners have-escaped!"

Edith broke from her paralysis of surprise. With a cry of dismay, she whirled back through the gap among the buildings. The two guards yelled in realization of her identity, lifted their rifles, and came leaping in pursuit.

Across the valley flashlight beams sent lances of brilliance through the darkness as the group there began running forward. Doyle felt a numbing chill close over him. A pincers movement was threatening his own little party. Capture would be only a matter of time.

He thrust aside his despair. They weren't caught yet, he reminded himself. There was still time to do something.

HE CONSIDERED the situation quickly. The two guards were closest, and therefore of greatest danger. It would take several minutes before the group at the other end of the valley came within range. He knew that the movements of Edith, Bancroft and himself would be restricted by the valley wall on one side and the openness of the strip beside the lake on the other. With the two

guards drawing perilously near, there was only one direction in which they could go—and that was toward the other, farther group.

Doyle grasped Edith's arm, gestured to Bancroft. "We've got to go back. As quickly and quietly as we can. It's the only way out of this mess. Follow me now."

He set off a short distance down the narrow, plant-choked street, then turned around the side of a building and climbed swiftly up to the next terrace. He pulled Edith and her father after him, and they started out again. Behind them sounded the voices of the two guards, puzzled at finding the lower terrace deserted.

Shortly Doyle shifted to the next, higher terrace, again assisting Edith and her father. The two guards had separated, one on each of the lower levels. With their quarry still somehow out of sight, they sounded even more puzzled than before.

Ahead, the larger group of pursuers roared forward, like a pack of excited hounds. Doyle was sharply aware of them, but for the moment he concentrated on the two guards. Sooner or later, he knew, one or both of the Venusians would shift to the terrace he was on. He wanted to be ready when that happened.

Presently it did. There was the rattle of stones as one of the guards climbed to Doyle's level.

Motioning urgently to Edith and Bancroft, Doyle swung down to the terrace that had just been vacated. Edith and Bancroft followed. What little noise they made was swallowed up in the confusion of voices and pounding footsteps from ahead.

Doyle trotted on. He realized that his breath was becoming more and more labored. He wondered how much longer Edith and Bancroft could hold out—especially Bancroft.

HE STRAINED his ears, trying to keep check on the positions of the two guards in his rear. In another moment he heard lurid curses as the lowest of the guards slipped in his efforts to climb up to the terrace along which Doyle and the others were running. At the same time there came the clatter of stones as the second slid down to join his companion.

With frantic haste, Doyle dodged around the side of a building. Edith and Bancroft joined him barely in time to escape detection. Lowering himself down to the first terrace, Doyle reached for Edith. He swung her down beside him, then turned to Bancroft. The older man was descending along a number of stones projecting from the crumbling wall. One of the stones abruptly slipped out of place, and with a gasp of dismay Bancroft noisily slid the remaining distance downward.

From above came shouts of eagerness as the two puzzled and angry guards once more located their prey. Their cries were answered by the group splayed out ahead.

Doyle bent quickly to help Bancroft back to his feet.

"Better leave me, Greg," the archaeologist whispered tiredly. "I'm all played out. You and Edith will have a better chance without me."

"We're sticking together," Doyle said doggedly. "We aren't licked yet."

"But what can we do?" Bancroft protested. "I can't go much further."

Doyle glanced around swiftly. Wildly waving flashlight beams were slicing the darkness up above as the two groups of pursuers converged. A short distance away, dim and unreal in the gloom, bulked the pyramid temple Doyle had noticed earlier. He seized at the possibility it offered.

"The temple over there!" he said swiftly. "We've got to reach it."

Ignoring Bancroft's objections, Doyle slipped an arm around him and urged him forward. Edith added her own assistance and, inspired to new effort, Bancroft stumbled into motion.

THEY REACHED the ramp leading up to the temple doorway just as one of their pursuers sighted them. The Venusian swung up his rifle and fired. The bolt struck the balustrade at the edge of the ramp and sent up a shower of stone.

"There they are! They're going into the temple!"

"After them, you fools." It was Guriz' voice, shrill with rage. "Kill them! Do not let them escape!"

Rocks clattered as the group began descending toward the temple. A few retained enough presence of mind to direct their flashlight beams at the ramp, while others hastily fired their weapons at the fugitives.

By this time, however, Doyle and the others had gained the protection of the balustrade. Not until Guriz and his henchmen reached the foot of the ramp would their fire be effective.

Half pushing, half pulling, Doyle and Edith got Bancroft up the ramp and into the temple doorway at the top. Doyle flashed his torch around. They were in a small chamber, he saw. Against one wall stood a tall carved stone idol, in front of which rested a large stone bowl. There was no other exit from the room except that by which they had entered.

Doyle groaned inwardly. They were hopelessly trapped. Yet they couldn't wait in passive resignation while Guriz and the others closed in for the kill. Something had to be done.

In flashing around the torch Doyle suddenly noticed that the stone idol didn't fit flush with the wall. It was turned at an angle, leaving a gap of a foot or so at one side.

Investigating the gap, he exclaimed

In surprise. "There's a hole in the wall of some sort here! If I can just move this hunk of rock out of the way—"

He handed Edith the torch, grasped the edge of the stone figure, and pulled, one foot braced against the wall for added leverage. Slowly the idol moved aside. A small square opening was revealed.

"A doorway!" Doyle breathed.

Bancroft nodded slowly. "I might have guessed there would be an arrangement like this here. The Aztols were clever at things like that."

Doyle stiffened, listening. Their pursuers had reached the bottom of the ramp.

"We've got to get out of here!" he said. "I don't know where this doorway leads, but it might be a way out. Get inside, quick!"

EDITH WENT first, Bancroft following. Slipping through after them, Doyle found himself at the top of a narrow stairway leading downward. In the flashlight beam he saw a stone ring fastened to the back of the idol, obviously used once for pulling it flush with the wall. He grasped the ring and pulled, but shortly the idol stuck, leaving the gap between it and the wall somewhat larger than it had originally been. He gave up after a moment. The gap wouldn't be noticed immediately, and Guriz' party was already near the top of the ramp. He hurriedly followed Edith and Bancroft down the narrow, twisting stairway.

To Doyle the descent seemed to take them into the very bowels of the planet. Faintly, from above, came cries of consternation as Guriz and the others had found the chamber empty. But presently a shout rose as the gap behind the idol was discovered.

Doyle reached the bottom of the stairway, found himself with Edith and Bancroft before a square open-

ing in the rock that gaped outward into utter darkness. He took the flashlight from Edith and pointed the beam through. A tunnel stretched down at a slant.

"Wish I knew just what we're getting into," he muttered. "But we've got to keep moving. Guriz and his gang will be coming down the stairs in another few seconds."

Doyle swung into the lead. The tunnel floor was level and free of debris. They could move at a headlong pace without fear of tripping.

The tunnel slanted steadily downward. Then, suddenly, it straightened out. Doyle halted with a hoarse whisper of astonishment. Gasps followed from Edith and Bancroft as they, too, saw.

THE WALLS of this portion of the tunnel were lined with niches. And seated within each were mummified Venusian figures, crowned with gorgeous headdresses and draped in richly gleaming robes. Necklaces of glittering gems hung about the withered throats, and jeweled bracelets and rings covered the skeletal wrists and fingers. Resting in the laps of the figures were sceptres and ceremonial axes of precious metal, all gem-encrusted.

Bancroft was in an archaeologist's paradise. He examined the mummies feverishly, muttering to himself.

"I'd been wondering where the tombs were hidden! Princes and nobles, these. This is the way the ancient Aztols buried their dead, you know—the important ones, anyway.... Lord, this a regular treasure trove! If only—"

"I know," Doyle said gently. "But Guriz and the others are coming after us. We've got to keep moving."

Abruptly he held up a hand for silence and listened intently. From the other end of the tunnel came a swell-

ing babble of voices, mingled with the dull thunder of running feet.

He flashed the torch down the length of the tunnel ahead. Not far distant another square opening yawned.

Doyle beckoned urgently. "Come on! We've got to hurry."

The opening gave out on a short stairway. Reaching the bottom, Doyle found another tunnel stretching ahead of them. A damp clammy chill struck into him through his clothing. The tunnel walls gleamed with slime, and the floor was ankle deep in ooze. Faintly, from up forward, came the steady dripping sound of water.

THE OOZE made their progress difficult. Gradually, however, it thinned out into muddy water. The water grew deeper, and shortly they were sloshing through it up to their knees. In their rear came the relentless thunder of pursuit.

With the flashlight Doyle kept probing the velvet blackness ahead. Always it kept opening before them, seemingly without end. He was chilled from the cold dank water through which he moved and icy with a growing despair. He knew he couldn't keep going much longer. By what miracle Edith and Bancroft kept up with him, he didn't know. But he was certain it couldn't last.

And then, abruptly, the flashlight beam was reflected from a wetly gleaming wall. The tunnel had ended at last. But—

In a blind alley.

Doyle turned to Edith and Bancroft, shoulders sagging. He pointed the torch mutely, and the sick hopelessness that leaped into their faces caught at him like a pain.

In the distance sounded cries of amazed delight as Guriz' henchmen discovered the mummies in the niches. The sounds of pursuit momentarily

ceased. The greater part of Guriz' band evidently had paused greedily to plunder the long-dead figures of their jeweled ornaments.

Doyle heard Guriz speak in a tone of sharp reprimand. But the others ignored him for the moment as they argued among themselves over the division of the loot. Then Starkhov's voice added itself to the exhortations of Guriz.

On an impulse, Doyle sloshed toward the imprisoning wall, flashing his torch about in desperation. The tunnel just couldn't end this way, he told himself. It had to have an outlet somehow.

In the next instant he had all he could do to keep himself from shouting in utter joy. Stone rungs were set into the side wall, leading up to a small opening in the ceiling.

He whirled, gesturing excitedly to Edith and Bancroft. Incredulous hope leaped into their faces as they glimpsed the rungs and the opening above.

BEHIND them the sounds of pursuit suddenly resumed. Guriz and Starkhov had finally succeeded in getting the others back on the chase.

"Here they come!" Doyle whispered. He started toward the rungs in the wall. "Up we go—and fast. The tunnel here is straight, which means they'll be able to use their weapons when they sight us."

Edith climbed swiftly. Bancroft went up after her, boosted along by Doyle. As Doyle started up, the first of a number of flashlight beams reached toward him—touched him.

"There they are!" Guriz bellowed. "Hurry, you clumsy dolts. They're climbing up the wall somehow. Do not let them escape!"

A rifle made its spiteful crackling sound, and the bolt splashed coruscantly against the end wall, near Doyle's legs. Other weapons began fir-

ing. With frantic haste, Doyle literally hauled himself up hand over hand. Squeezing none too soon through the opening, he found himself in a low, narrow chamber. Bancroft was examining a heavy length of wood which projected from a slot in one wall.

"I think I know what this is for," Bancroft muttered. "All that water down here, you know, and the lake nearby. If I'm right—"

He grasped the length of wood and threw his weight against it. For a moment it refused to budge. Then there was a slight scraping noise, a faint rumble as of sliding rocks—and the lever moved.

Abruptly, like thunder in the silence, the roar of rushing water filled the room. Doyle dropped to his knees, flashing his torch through the opening. He could see nothing but water, shooting past in a solid stream. Shouts and screams of terror reached him muffledly from the trapped men in the tunnel below. There had been no chance of escape for Guriz, Starkhov and the others. The water had come too rapidly.

THE VOICES were choked off one by one. There was left only the roaring of water, fading slowly as the tunnel became completely filled.

Doyle stood up slowly, dazed. Bancroft's voice came to him as if from a distance.

"The lever opened a water lock connected with the lake. The Aztols were ingenious at devising little tricks like that. At any rate, Guriz and Starkhov got what was coming to them. Their deaths remove a serious danger to Earth."

Doyle took a deep breath, nodding. "Well, that leaves only the problem of getting out of here."

"There's a doorway in the wall over

there," Edith put in. "When you get around to noticing it, let's go."

There *was* a doorway, Doyle found. Steps led up and ever up. Holding Edith's hand, the climb didn't seem to take very long at all. He felt a mild surprise when suddenly they emerged from a narrow cave and into the dark bowl of the valley. The lake gleamed a short distance ahead, and outlined against it was the shape of the flier.

Doyle felt Bancroft grip his arm. But he had already glimpsed the sight at which the older man was pointing.

At the other end of the valley a number of fires burned brightly, growing larger. Flames were destroying Guriz' secret atomic arsenal.

"The native slave laborers most likely did that," Bancroft said. "Everybody joining in the search for us gave them their chance to revolt. Starkhov and Bruhl drove them mercilessly, and you can bet that not a single building will be left standing."

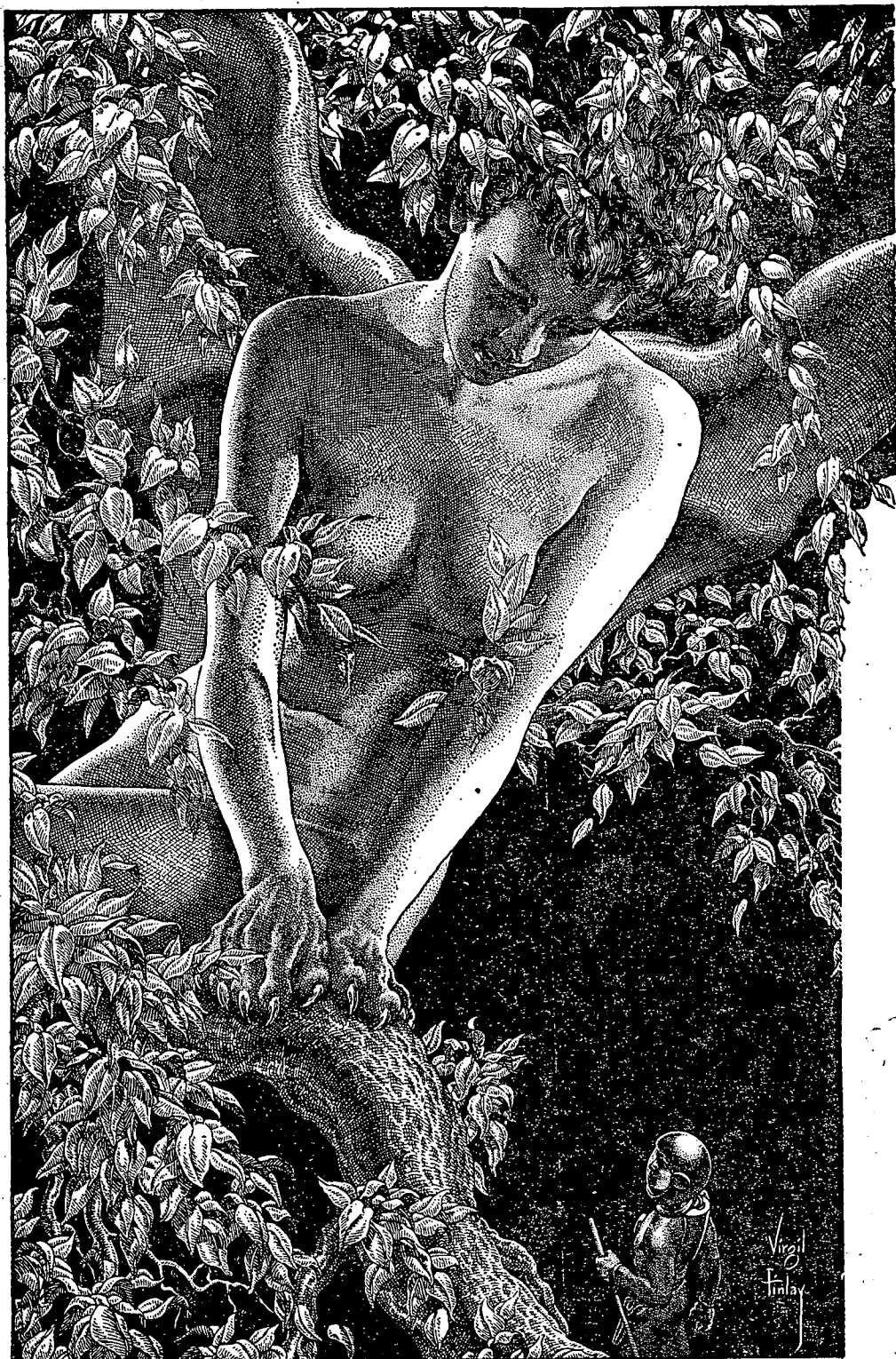
Doyle stiffened. "The atomic stuff Starkhov was working with! If the natives meddle with that—" His fingers tightened on Edith's hand. "We've got to get out of here—and fast!"

They plunged recklessly down the slope, toward the flier at the edge of the lake. Shortly Doyle had the craft in the air, streaking up into the cloud blanket. The valley dropped out of sight, a bad memory left behind.

BUT NOT quite. A short time later the surrounding clouds brightened with a sudden vast brilliance, the mere reflection of a holocaust from which the flier alone was escaping untouched.

"We got away just in time," Doyle said. "Something big went off down there."

Bancroft nodded, his expression
(Concluded on page 162)



Unseen wings whispered among the foliage as the unsuspecting man passed by

The WORLD of WHISPERING WINGS

By Rog Phillips

Ted wanted to get back to Earth and hunt up a little fast romance. But he forgot things change after three thousand years!

"THREE THOUSAND hours to Earth," Dr. Lansing said, "and we've been away three thousand years. Home..." He grinned, his blue eyes twinkling under his shock of iron-gray hair.

"Home?" Ted Grant said. "Maybe it was to my great-great-etcetera grandpappy. But I wonder how we'll feel there. Anyway, I hope you're right as usual, you old thinking machine. Just think, Andy." He turned to Andy Thorne, the other occupant of the room. "Glamor girls from Hollywood, or its modern counterpart. And we can have our pick of them, too. We're bound to be glamor boys to them. Back from the starways."

"That's the trouble with you young unmarried people," Lansing admonished. "Marriages have dropped eighty-seven per cent this last year over the previous year. And it's all because you young people are dreaming of romances when we land."

"Can you blame us?" Ted persist-

ed. "Bet you wish you were young yourself. Me—I'm going to find a cute Earth girl and see the life there. You'll probably be closeted with Earth scientists, talking over percentages. Or maybe they've advanced so much in science you'll have to go to school all over again."

"That's possible," Lansing said. "Here on the *Astral Traveler* we haven't made too many advances in theoretical physics in three thousand years. On the other hand, civilization wasn't too firmly established when we left.... We should be raising Earth on our radio soon."

Thorne snorted. "Wouldn't it be funny if after coming all the way back to the Solar System we found that life on Earth was gone?"

"It isn't gone," Lansing said. "You've seen the Earth through the telescope. It's substantially the same as the pictures of it. There's been no catastrophe big enough to wipe out all mankind."

The intercom loudspeaker clicked audibly. The three men looked up at it, waiting for it to speak. "Dr. Lansing," it said, "will you please come to Control Center at once?"

The gray-haired scientist picked up the hand mike on his desk and acknowledged the call. "Maybe this is contact," he said.

But when he returned an hour later he was frowning. He shook his head in answer to Grant's and Thorne's questioning look. "I think something has happened to the Earth," he said. "We're skirting the Earth's shadow and taking spectros of sunlight that has passed through the Earth's atmosphere. The absorption spectrum shows some disturbing things. We don't know what to make of them yet."

"Like what, for example?" Grant asked.

"A seventy-five percent increase in carbon dioxide and a ten percent decrease in oxygen content. That indicates either a tremendous increase in vegetable matter or a disastrous decrease in animal population, including man, or both."

"What else?" Grant said.

"There's an appreciable dark line indicating carbon fourteen, the unstable isotope. There shouldn't be. That means there's an appreciable part of a percent of that isotope in the atmosphere as carbon dioxide. And that's impossible, unless..."

"Unless what?"

"Unless there's a gigantic selective reactor in operation on the Earth," Lansing said. "It would have to be designed for the purpose, and it would have been in operation for at least a thousand years. It could have been built with the knowledge Earth had when we left in 1982, but it would take an insane group to actually build it."

"**W**HAT DO you mean?" Thorne asked. "What could it do?"

You mean it would make so much radioactive carbon that life would be destroyed by the hard radiation?"

"No. Not enough for that. No danger of that. What I mean is that each C-14 atom would be a small bomb liable to explode at any time. In the heart of a living molecule, especially the sperm or egg, it could do anything from destroying the fertilized egg to altering it so that the resultant organism would be malformed. Mutated."

"There's enough for that?" Thorne asked.

Lansing nodded grimly. "The most accurate estimate we can make is that one seven-thousandth of the Earth's carbon is C-14!"

"Then there won't be any human life on Earth?" Grant said, disappointed. "But there must still be people on Earth Station. It's out of range in its orbit outside the atmosphere."

Lansing was shaking his head. "We're close enough to see it in detail now. It's riddled. It was close enough to the Earth so that space debris had a penetrating velocity due to the Earth's gravitational attraction. As long as its electronic repulsor setup operated, it was safe, but somewhere along the line something happened. I'm afraid we've come back to something we should stay away from. We should turn right around and go back to Alpha Centauri." He grinned at their expressions. "But, being human, we won't. The Council has decided we'll land and investigate."

"That's more like it!" Grant exclaimed.

"Don't be in a hurry," Lansing smiled tolerantly. "We'll repair Earth Station first and place some of our overcrowded population on it. We'll also probably build a smaller ship for the actual landing. It may be a year before we can stand on the land of

our home planet. And neither of you may be in that landing party."

"If I'm not," Grant said, "so help me I'll—I'll parachute down *AWOL*."

"That's what I mean," Lansing said, frowning. "You're prone to disobedience. You have a record for it. Still, if I have a say in it, I'll see that both of you are in on the landing."

THE LEAVES whispered softly, almost inaudibly, as the dawn breeze came to life. Whispered, and then became silent. In the silence sounded the distant plaintive call.

"Bah-loo..."

The leaves whispered again, an undertone of officious self-importance in the sound. Balu, hearing it, permitted the beginnings of a smile to quirk her lips.

The breeze, as though encouraged by this sign, shifted slightly, washing against dew-studded fruits. Its new approach was rewarded by a quivering of sensitive nostrils and a further widening of the smile.

The leaves rustled expectantly. Balu rose lazily to one elbow, stretched one wing sleepily until it was fully extended, reached an arm along its forward edge until short-fingered talons touched it, their points a scant inch from the elbow where the wing began to sweep backward.

In almost a continuation of the movement she sat up, instincts maintaining her balance on the six-inch-thick branch. Not until then did she open her eyes, and then abruptly, their smoky violet orbs only partly revealed by the elongated tear-drop frames of jet lashes which began at the edge of either temple, curving around to terminate at tear ducts inherited from oriental ancestors.

"Bah-loo..."

She seemed not to have heard the far-off cry of pleading and protest as she sat on the branch, her long grace-

ful legs swinging, her violet eyes taking in the myriad silver flashes from the underside of the leaves as they were stirred by idle air currents.

A wide yawn revealed even white teeth, a firm red tongue. And then with lazy grace she reached upward with her wings and brought them down swiftly, lifting herself up. Taloned toes, long and powerful like those of a gorilla, seized the rough bark of the limb.

From her impudently pug-nose to her overly wide but feminine shoulders, from her softly rounded breasts to her narrow waist and smoothly curving hips, she might have been a girl alone in the privacy of her room. A girl with rich brown hair cropped in a boyish bob, with overly mascaraed eyes. A girl whose firmly molded features were as caucasian as her eyes were not, whose expression mirrored innocence and unselfconscious contentment.

For the barest instant she poised. Then she dived headlong from the branch in free fall, wings trailing, legs doubling up until knees rested together against her breasts.

The wings came to life now, reaching forward to seize the invisible air and toss it backward and downward in skilled thrusts, while the slim arms curved forward and the strangely animal hands seemed ready to protect the face against any unexpected obstacle.

Her head was tilted backward, slitted eyes into the wind, smoldering violet fires lurking in their depths. On her face was still mirrored the expression of contentment and innocent unconcern. Nor did it alter in the slightest as, a third time, the protesting and bloated roar, "Bah-loo!" erupted through the forest.

Before the echoes of that angry wail died she was gone, leaving only the whisper of the leaves.

"God!" Andrew Thorne said with soft reverence into the microphone of his spacesuit.

TED GRANT heard the one-syllable prayer and looked down between his knees through the two miles of space toward the approximate spot where Thorne had dropped. "Find anything yet?" he prompted hopefully.

"No," Thorne's voice came. "I was merely extolling over the beauties of the landscape down here."

"Yeah? I think I'll drop this eggbeater down to where I can do some extolling myself."

"No!" Thorne's voice was sharp. "It might frighten her!"

"Her?"

"Damn," Thorne muttered. "All right, I just saw one of them. But she flew away. I'll have to find her again."

"Flew?" Grant's tone was skeptical. "Angels yet? Good lookers I trust?" When there was no answer from Andrew Thorne, he switched to long distance broadcast. "Grant calling ship," he intoned.

"Go ahead, Grant," the answer came immediately.

"Thorne located one of them. It flew away. From his reactions it was female, young, and beautiful."

"Did you say flew?"

"That's what I said. Flew."

There was a moment of silence. A new voice came on. "What type of machine did it fly away in? This is most amazing. It never occurred to us they still had a machine civilization."

"I gathered that it didn't have a flying machine," Grant said dryly. "Wings. Just wings."

"Even more remarkable," the voice said. "Relay to Thorne that he must get a pair of them at any cost. Spengler was right. These people, left to

themselves, have developed a technology peculiar to themselves. From those wings we may be able to deduce their entire science, from mathematics to plastics. We must get a pair of them at any cost!"

"From Thorne's reaction," Grant said patiently, "I should imagine that if you want a pair of the wings, you'll have to take their owner too. You see," he took a deep breath, "she grew them. At least I think that's what Thorne implied."

"Grew them?" The question exploded through the loudspeaker and was followed by a silence pregnant with surprise. "Impossible! The human features couldn't alter enough to enable them to gather food without the aid of hands. In any mutation that changed the arms to wings, the person would have to be fed continually by hand, or starve to death."

"I wouldn't know," Grant said. "Want me to connect you with Thorne?"

"Yes."

Grant adjusted the necessary switches for a three-way contact and listened...

"Let me get this straight," Dr. Lansing's voice said with the patience a professor exhibits toward a particularly stupid student. "You say the wings are attached to the back? Then they are obviously mechanical."

"No," Thorne said with the dogged stubbornness of a backward student. "When she woke up she stretched them. They aren't mechanical."

"I'm sure you must be mistaken. But keep looking for her. I'm coming over. And Grant, you stay where you are so I can find the place. Is he hovering directly above where you are, Thorne?"

"Approximately. Maybe a quarter of a mile to the south. But I told you she flew away, and I haven't been able to find her."

"She won't have gone far, I'm sure. Wings such as those would have to be refueled often for prolonged flight. No—I know you're convinced they grew. But I assure you that's impossible, even with the C-14 action. You'll see. Keep looking for her. I'm going to leave the ship now."

Grant heard Thorne's deep sigh, and grinned his amusement.

"BAH-LOO..."

Andrew Thorne frowned in speculation over the strange protesting call. It might have been that of some wild creature, except for the sharply accurate enunciation of vowels and consonants.

It was more than possible he decided, that it came from a human throat. Since there was no way of knowing where the girl had flown, he made his way in the direction from which the call had come.

Shortly the terrain changed from the solid mixture of dirt and decayed though dry vegetable matter to a clinking muck that was treacherously slippery as well as clinging. The sparse shrubs and grasses were replaced by a plant that seemed to consist only of fine green threads that lay on the surface of the mud and snarled around his boots when they skidded.

Finally he became unsure of his directions and paused to rest and wait for the call to be repeated. He had a good five-minute wait before it came, and then it seemed to come from a different direction and be farther away than before.

Disappointed, he turned to make his way back to secure ground again.

Without warning he was struck from behind. He fell sprawling and instinctively rolled to his back, fumbling at the catch that would release his hip gun while his eyes searched for the source of danger.

His fingers suddenly froze into mo-

tionlessness. On a limb of a nearby tree the girl was poised, ready for flight, her back to him, her head turned so she could watch him, a half-curious, half-afraid smile on her lips.

"Hel-lo!" Thorne breathed, rising in slow movement to a sitting position.

"Hello!" She might have known the meaning of the word or merely repeated the sound. Her voice was clear, well modulated, and entirely feminine. Thorne found himself wanting to hear it again.

"Don't be afraid of me," he said.

"So you *are* a visitor," she mused. "I wasn't sure. I've never seen a visitor." She lifted herself with a movement of her wings, turning to face him, and in a smooth movement seizing the limb with taloned toes and squatting, hugging her knees and resting her chin on them while her smoky violet-slitted eyes regarded him with frank curiosity.

"So you can still speak!" Thorne stood up slowly.

"Of course," she said. "Our sworn duty is to preserve the language." She paused, then added, "And help one another."

"Do you have a name?"

"Balu." She smiled.

"Balu?" Thorne said. "So that was someone calling you!"

"My brother. Do you have a name?"

"My name's Andrew Thorne. You can call me Andy."

"Andy. I like that. Your shape is strange. Is that why you are here?"

"I'm wearing a space-suit," Thorne explained. "I have to keep it on because of the C-14 in the atmosphere."

"The C-14?" Balu said. Only she pronounced it *Cif-Fortean*, with a quiet reverence.

THORNE was left with his mouth open as the implications of her tone penetrated. He changed the sub-

ject. "Why did you push me over just now?" he asked.

"To have opportunity to see how you behave," Balu said. "I think I like you. I'll come down and let you pet me if you wish to." Without waiting for his reply, she slid off the branch and with two deft swoops of her wings stood erect less than four feet from him, as unconscious of the effect she produced as a little child.

Thorne's spacesuit was suddenly intolerably hot and stifling. He took a step forward, and stopped as his eyes were drawn in hypnotic fascination to hers. She matched his stare, as fascinated by his. They remained that way seconds or minutes. She took a timid step toward him, reached out and touched the chest of his spacesuit with her almost entirely animal paw of a hand.

Awareness of self flooded over her suddenly, changing the delicate pink of her skin to a flushed red.

Once again Thorne was shoved sprawling to the ground, this time on his back. As he fell she turned away, darted a smile at him over her shoulder, and leaped into the air.

He watched numbly as her huge wings scooped upward to carry her out of sight before he had time to call to her. A melodious embarrassed laughter drifted back to him through the trees.

"Balu!" he called. "Come back. Please!" He bit back any further call and got to his feet. "That little devil!" he muttered.

"Sounds more like an angel to me," Ted's voice sounded.

Thorne choked back an angry reply and searched with slowly dwindling hope for some sight of Balu through the trees. Instead there came a now angrily indignant call.

"Bah-loo..."

It was repeated with an almost sobbing undertone. It was louder and

closer than it had been, but seemed to come from no definite direction.

Andrew Thorne felt, abruptly, a great emptiness, a terrific loneliness, an aching yearning, for what he couldn't define. But all that met his searching eyes was the mocking flashes of the silver undersides of the leaves of the trees and the thick twisted branches, and the only sound was the slightly brittle rustle of the leaves as they were moved by the morning breeze.

TED GRANT, using powerful binoculars, had located the bright reflective flash of Thorne's headgear. When Balu fled he was able to follow her flight until she came to a stop a good half mile from Thorne. She was in a small clearing. He watched for a moment and decided she must be picking berries and eating them.

He grinned to himself, shut off his contact with Thorne, and raised Dr. Lansing. "I think it advisable for me to put my gyro on autopilot and go down, sir," he said. "The girl got away from Thorne. I can see where she is. I could reach her in five minutes."

"Keep her in sight and wait until I get there," Lansing's crisp voice ordered.

"I don't think that wise," Ted said. "She's moving about slowly and I'll probably lose her. Better for me to go down."

"All right then," Lansing consented.

"Thank you, sir!" He switched Thorne on again. "Lansing's ordered me down. I was able to follow her flight. She's a couple of miles away from you toward the northwest. You can contact me suit to suit now."

Not waiting for an answer, he shoved in the autopilot, opened the hatch, and dove out.

Now his attention was concentrated on the clearing where he had seen Balu. With the skill of experience he guided his fall in that direction. He planned to land in plain sight of the girl. She had already seen one space-suited figure and therefore would be less afraid. Since Thorne's suit had red trim and his had blue she would know it wasn't the same person.

He loosened the safety flap over his hip gun holster while eager anticipation shone in his eyes. He had no intention of letting Balu get away from him.

At five hundred feet he was directly over her. At fifty feet he released hydrogen into the deep cups of the chute to give them buoyancy. He touched the ground at a speed of three feet a second, so silently that Balu wasn't even aware of his arrival.

Her back was to him. He pulled the snap that released his chute and it rose slowly toward the treetops. He didn't watch it rise. His eyes were taking in the details of the unbelievable figure of Balu, her long slim legs, her narrow waist, the way the long and powerful wings hinged where her shoulder-blades should be, but so naturally and so beautifully that it was impossible to regard them as abnormal.

AS HE studied her he debated what to do. Should he wait until she turned and saw him? She might take to flight without ever doing that, and he couldn't follow her. Nor would he dare shoot her down. The fall might injure or kill her.

He studied her short tousled hair with its careless rich brown waves, her small ears that seemed almost ornaments to hold errant curls in. He came to a sudden decision. "Balu," he said softly.

Her head went up like a wild animal's and became motionless. She

was poised for flight. When he made no further sound she half turned her head. He sucked in his breath at the weird mixture of races blended into her profile. Seeing him, she turned further toward him.

"Why, you're beautiful!" he breathed in surprise.

"You aren't Andy."

"No. I'm Ted. Don't be afraid of me. I won't hurt you. You—you're so beautiful.... Your eyes... I've never seen eyes like yours."

"Some of your words I don't know," Balu said. "Beautiful? Wonderful? Do you mean you think I'm pretty?"

"Yes. Pretty."

"Thank you. You may pet me if you want to." She advanced toward him, her expression coaxing, bright lights in the smoky violet depths of her widely slitted eyes.

"If I want to!" Ted said.

He reached toward her. Abruptly her wings moved, lifting her up and backward. A teasing laugh escaped her lips.

Ted, mistaking her maneuver as an attempt at escape, leaped toward her. His arms encircled her. Surprise held her unresisting as she stared into his eyes.

"I'm going to let you go in a second," he said. "Before I do though I want to make sure you understand that I won't hurt you. Do you understand that?" She nodded. "And you won't fly away?" She hesitated briefly, then shook her head. "All right, you've promised," he said gruffly, releasing her.

She backed away a step, her expression half subdued. Ted found he was panting and his heart was pounding against his ribs.

He reached out and touched her face with his glove-encased hand. Balu smiled shyly but didn't back away.

"I'm going to take off this space-suit," he said.

"Can you?" Balu said in surprise. "Andy told me *Cif-Fortean* wouldn't let him."

"God! I forgot about it!" Ted said. He groaned. Then he grinned. Reaching out and wrapping his fingers around her wrist, he said, "Come on, Balu. Let's go find Andy. Before I forget I'm a gentleman and make a pass at you." He grinned and reached for her wrist.

Playfully, she eluded his grasp and pushed at him, her wings starting to lift her into the air. Then she paused and returned to him. He laughed and imprisoned her in his arms, pressing her tightly against his spacesuit and wishing it weren't there. On impulse, he reached up, turned the transparent helmet half way round and took it off. Holding it in one hand, he pulled her toward him with the other, and kissed her full on the lips. "Well," he teased, "guess not everything on Earth has changed. With a little practice, baby, I could almost go for you, claws and all."

She stood quietly watching, with a dreamy smile, as he put the helmet on again. Her nostrils wrinkled when he opened the manual controls on the air tanks to blow out the C-14 from the suit. When he was satisfied, he turned them back to automatic again and took her hand in his.

Her wings beat and threatened to lift them both into the air. Laughing, he said, "Here, none of that. Stop it."

"Let go of Balu!" It was Thorne's voice, frigid with rage.

Ted turned his head and saw Thorne already leaping toward him. He released Balu and jumped aside, shouting, "Take it easy, Thorne. Take it easy."

Thorne came to a half in his headlong charge. "You—you dirty swine!" he gritted. "You fool! You crazy fool! What do you think you're doing? This is no ordinary girl."

"Damn you!" Ted said, leaping forward. He squared off at Thorne, fists doubled. "Don't you try to tell me how to act!"

Neither noticed Balu rise on silent wings and perch on a nearby tree limb. They were glaring at each other, oblivious of everything else.

"Stop shouting!" Dr. Lansing's voice interrupted. "Look up. I'm only a hundred yards above you."

With a wary glance at each other, they looked upward and saw the space-suited figure of the scientist descending with his tandem chute taut above him.

AN EXPRESSION of disappointment had flashed over Balu's face at the cessation of what had promised to be an exciting fight, to be replaced by interest in the figure now landing. That interest was reflected on Dr. Lansing's face also. He released the catch that sent his parachute drifting away without even seeming to be aware of doing so. His eyes were taking in the details of structure, the wings, the strange eyes of Balu.

Thorne and Ted stood in scowling silence while this inspection went on.

"You aren't afraid of us?" Lansing asked. Balu smiled and shook her head quite vigorously. The scientist added, "What a beautiful mixture of the real and the impossible! Tell me, are there more like you here?"

"I have a brother," Balu said.

"Where is he?"

"Out there." Balu pointed vaguely. "He isn't much like me."

"Are there others?" Lansing asked. "People with wings like yours?"

Balu shrugged indifferently. "Maybe." But there seemed to be something akin to fear lurking in her eyes. Lansing saw it and changed his mind about something he was about to say.

Instead, he turned to Thorne and

Ted with a grin. "If you two were fighting about her," he said, "get over it right now. . . ." His voice drifted off. Balu had glanced upward and let out an involuntary gasp, then darted into the concealment of the branches. He looked up.

At first all he could see was the two helicopters hovering at five thousand feet under autopilot, ready to come down by radio control when they were needed for takeoff.

Then he saw a flash of white. His eyes adjusted to it. It was a flying human, legs drawn up against its chest. He saw another and another, until he could make out at least five. They were at three thousand and climbing.

It was Thorne who divined the intention of the flying men. "The ships!" he said. "They're going up to the ships!"

"They will wreck them," Balu said calmly.

"She may be right," Lansing said. "If they board the ships and switch them off auto they'll crash. We'd better bring them down."

He touched a gloved finger to a stud in the chest of his suit and started uttering sharp explosive repetitions of the word *dot*. Ted did the same.

The two helicopters responded by starting to drop rapidly. The winged men moved to intercept the ships.

There began a strange duel in the sky as the two men on the ground maneuvered the ships this way and that, and the flying men darted this way and that to intercept them.

Suddenly one of the flying men was struck by a lift blade which broke one of his wings and half severed it. The ships and men were less than a thousand feet overhead.

A moment later a faint scream drifted down. Two of the others had dived after him and caught him in his

fall. They continued dropping until they were out of sight. Seconds later, having deposited their wounded companion in safety, they rose in zooming flight to join the other two in their attempts to board the two ships.

"If they succeed we'll be stranded for days," Lansing groaned. "Our suit radios won't reach the spaceship."

And even as he said it, two of the flying men darted in from underneath and found secure holds on the undercarriage of each ship. Both Ted and Dr. Lansing maneuvered their ships, trying to throw the winged men off, but they were dealing with men who were accustomed to violent flight. In a moment it was all over. The flying men had gained access to the interiors of the ships and thrown out the autopilot control.

As the ships ceased to respond to remote control, the three men on the ground stood still, watching as the two flying men darted away to join their two companions and watch the ships veer out of control and plunge downward.

"THIS IS awful!" Dr. Lansing said ineffectively. "Our air cycle might exhaust itself before we're found."

"Let's find the ships," Thorne said. "Maybe we can fix one of them. Or maybe we can work one of the radios and contact the space-ship."

The flying men were no longer visible in the sky. Either they hadn't seen the three space-suited figures on the ground, or they didn't care to investigate them.

Balu cautiously came out of concealment. "I'll help you find your ships," she said.

Lansing looked at her, frowning. "I wish you had some clothes to wear," he mumbled.

"Clothes?" She laughed delightedly.

"I know about clothes. I will get some."

She leaped into the air and darted away.

Lansing watched her go. When she was out of sight he turned abruptly to Thorne and Ted. "I want you two to listen to me," he said sternly. "I'm in command. Nobody issues orders here but me. What I say goes. And I want to warn you—I'll tolerate no messing around with this Balu, either. Maybe her ancestors were human, but she's not. If one of you succeeded in mating with her, your offspring would be monstrosities. More than likely they'd be born with their brains outside their skulls like radiation-blasted white mice have been. I won't stand for either of you playing around with her. She's not a toy to be experimented with. I want her to be left alone. Do you understand? If not, I'm going to see that you get full demotion and penalties when we get back to base ship. We're here for routine inspection. And Ted, you particularly—no Don Juan stuff like you're noted for among our own peoples."

"Are you sure you aren't exceeding your authority?" Ted asked softly. "After all, I'm the senior officer on this jaunt. My orders take precedence over those of a civilian scientist. I shall do exactly as I please."

"We are three," Lansing snapped. "Theodore Grant, you are under operational arrest. In the presence of Andrew Thorne, I invoke Articles of Space, Section 14A, Code BF, Item 7.18. Until we return to the ship you are not to speak except to answer specific orders. The slightest infraction of your arrest will be answered by total paralysis. Is that clear? I will take no chances with you."

"Yellow," Ted sneered as he started his hand toward his gun.

Lansing brought out his hip gun.

"That will do," he said. "Mr. Thorne, disarm the prisoner."

The sneer on Ted's face remained as he elevated his arms and permitted Thorne to take his hip gun.

Thorne turned to hand it to Lansing. "Out of the way!" Lansing shouted, then groaned. Thorne turned quickly and saw Ted dropping his helmet to the ground.

"Might as well take my suit too," Ted said. "I'm staying here." He inhaled deeply. "C-14 contamination won't be so bad when I get used to it."

"Do you like me now?" Balu's gay voice broke into the consciousness of the three men like a shot. They turned and gaped at her.

She had taken three leaves from a tree and fastened them in place with long strands of grass.

LANSING sucked in a breath and turned back to Ted. "Put your helmet back on and evacuate your suit or you get paralysis right now."

The sneer came readily to Ted's lips. "Go ahead. You won't dare keep me under permanent paralysis more than a day or two."

Lansing's lips compressed with determination. He made sure of his aim and pressed the contact stud of his hip gun. Surprise started to mold Ted's features and was arrested half way.

Lansing holstered his hip gun. He caught Ted's limp form before it hit the ground. Easing it down, he got the helmet and put it in place. Then he took the cover off the emergency suit controls and operated them until he was sure all the contaminated air was ejected.

Looking up at Thorne he said, "I don't think he could have gotten enough to do any damage."

"What did you do to him?" Balu asked. she darted overhead, keeping pace with them.

"He was insubordinate," Lansing explained. "He shouldn't have taken his helmet off."

"Why not?" she asked. "Why don't you take yours off? Why don't you, Andy? Ted did, and kissed me. I wish you would." She smiled archly, the flirtatiousness of Cleopatra appearing again through the lost centuries, in this creature with the beautiful face, wings and claw hands.

"You mean he took it off before this time?" Lansing said.

When she nodded, he stood up. "The fool," he said. "The poor benighted fool. This planet does things." He looked pityingly at Thorne. "Don't let it affect you too, son. Life patterns gone crazy, every individual born here the first and last member of a unique species in the constant reshuffle of infected gene structures...."

Thorne averted his eyes. He looked at Balu, tried to turn away, then let himself look directly into her violet, alien and yet somehow not alien eyes staring invitingly from behind their broad almond curtains of lids.

He jerked his eyes away. "We'd better get to the ships, sir," he said gruffly. "I'll carry Mr. Grant."

THE TREE trunks rose twistingly to become many crooked limbs that climbed still higher until they were lost in the silver blanket formed by the undersides of their leaves. Occasionally there was a break that revealed the blue sky and billowy bleached clouds. Sunlight streamed down in broad staircases.

There was no sound other than the heavy breathing of Thorne from the exertion of carrying Ted's lax form, the scuffling of his and Lansing's feet through the tough grass, and the sounds Balu's broad wings made when

On Thorne's face was an expression of bitterness that reflected his inner and unsuccessful attempt to draw his thoughts away from Balu.

On Dr. Lansing's face a half frown rested, forgotten. His trained eyes automatically took in the details of structure of the plants, the occasional insects, tabulating what they saw.

In his mind's eye he was seeing the theoretical picture of a giant molecule with its chains and rings and branches of connected carbon atoms that depicted a living chromosome. He was seeing the normal chemical actions that took place in that theoretical chromosome and its companions. Normal chemical action that eventually produced a living organism. Tree or animal or human.

And then in his mind's eye he was seeing a different kind of action. In the heart of this giant theoretical molecule, where no external atom or ion could reach, a carbon fourteen atom suddenly became something that wasn't carbon. Subtle shiftings of ionic potentials began, and when they were completed the chromosome was something else.

By analogy he saw the structure of chromosomes in the seed bearing the same relation to the adult organism that a set of basic postulates does to a system of mathematics, or a set of traffic laws does to over-all behavior of traffic. One insignificant change spreading its effects throughout the resultant system, altering it perhaps beyond recognition.

AND INSTEAD of that basic change being brought about in a sensible and intelligent manner, it was wrought by chance. Blind chance that placed an unstable carbon atom any place in the molecule. Blind chance.

that dictated when that atom would change, and what would result when it did.

That process had been the major mechanism of evolution from the first beginnings of life. Its workings had given the first and most primitive of virus forms a protective wall that had made it into a single-celled life form. That process had given the cell wall properties of cohesion that made possible the multi-celled organism. That process, working through the one unstable carbon atom in a thousand billion, had enabled blind chance to explore every avenue of possibility in organic chemical structure over an interval of ten thousand centuries until it discovered Man!

But here Lansing noted the differences that made each tree, each leaf, each blade of grass, unique. Here was no one C-14 in a thousand billion atoms of carbon. Instead, by actual test, there was one in every seven thousand. An average of three in the structure of every molecule that possessed the attribute of Life!

Lansing looked around. Here, in the grasses underfoot, the trees, the insects, and in the female form that flitted overhead from tree to tree, pausing to look down at him and Thorne and Grant, was the blind process of evolution carrying on its explorations at a mad pace a billion times faster than Nature intended; so swiftly that it had no time for stabilizing and perpetuating its discoveries!

In swift bold strokes it lifted the human form to that of angels, and plunged it down to the primeval slime. There was no way of knowing what Balu's parents were like, or what her offspring would be like, except that they would almost certainly not be like her.

Lansing's brooding frown etched its way deeper into his features. Here

was the force of Life, taking inanimate atoms and shaping them together into the animate dynamism of living form. And here too was the force, infiltrating carbon fourteen, making of that Life force a plaything.

He sensed it around him, touching against the wall of his spacesuit with hungry fingers from the atmosphere, omnipresent and infinitely patient, ready to permeate and contaminate every cell of his body—if he would but take off his helmet and breathe: for, though the bloodstream primarily absorbs oxygen and gives off carbon dioxide, it also absorbs carbon dioxide and carbon monoxide, so that with each breath millions of carbon ions enter the blood. *And only one C-14 atom in the right place is needed to produce a mutation!*

Something jerked Lansing out of his reverie. He looked around, trying to find what it had been—and saw the supposedly paralyzed Grant's hand cautiously extracting Thorne's gun from its holster.

"LOOK OUT, Thorne!" he shouted, leaping forward.

He saw the gun come up and center on him. He tried to duck aside. Then he felt the tingling sensation of every member of his body going to sleep. As he sprawled forward he caught a fleeting glimpse of the gun being turned down toward Thorne's legs. He found himself staring straight up through the trees at the sky. Aside from the tingling feeling of arms and legs asleep, and even stomach and chest and shoulders, he wasn't uncomfortable.

But how long had he been that way? Searching his mind he was distinctly aware of a gap in time. How long it had been was impossible to tell.

"Damn you, Ted," he heard Thorne

say. "My legs are paralyzed. Put down that gun. You're insane."

"Insane?" Grant mocked. "For the first time in my life I'm not insane." He laughed.

Thorne's voice sounded in a sharp, "Don't!"

A moment later Lansing saw Grant standing above him. He was no longer wearing his spacesuit.

"I just wanted you to see me," Grant said. "Now you'll know there's no use looking for me. By the time you found me I would be too contaminated to be allowed on the ship. Goodbye."

Lansing tried to talk, to tell him to put his suit back on, to explain to him he was sick. That the C-14 had in some way gone to his brain and he was doing things he didn't really want to do. But he was gone, and there were only the still trees and the jagged spots of blue sky.

And there was no sound except for the infrequent petulant wail from far away: "Bah-loo..."

Balu had said it was her brother. Why did he keep calling her? Why did she so calmly ignore his call? Why didn't he come looking for her, or *could* he look for her? From the deepness of his voice he was quite obviously adult. Was he one of those winged men who had scuttled the two helicopters? What had become of the wounded flying man?

These and dozens of other questions formed in Lansing's thoughts without any hope of immediate answer.

He returned again and again to the winged men. It was significant that the only humans he had seen so far all had wings. Was it possible that nature had found an answer to C-14 in some genetic pattern that remained stable, and that all human life here was now of the winged variety? That seemed impossible, but wings growing

from shoulder-blades were impossible, too, and Balu had them....

The tingling feeling began to grow less. According to the books that meant paralysis would soon go away. The sensory system would recover before the motor network. There would be a period of perhaps five minutes during which feeling would be normal but muscular action still difficult. Lansing wished he could at least turn his head and see how Thorne was.

Something vibrated through his spacesuit. It was repeated. It came at regular-spaced intervals and seemed to be a shaking of the ground he lay on. It could be some gigantic creature walking. A distant crashing noise lent support to that theory. The sound died away. The shaking of the ground stopped.

Suddenly Lansing felt his eyes blink. It was painful until tears washed accumulated dust particles away. Involuntarily he moved his head, then froze in surprise and dismay.

Several winged men squatted around in attitudes of patient waiting.

Lansing stared at them. Then his eyes went to Thorne. Strands of the tough grass were wrapped around his wrists and ankles. He was still under paralysis, but when he recovered he would be unable to move.

Experimental tugs at his own legs and arms revealed that he was also tied.

"One of them moves," a winged man said.

LANSING thought swiftly. How much did they know? How dangerous were they? The thongs, the patient waiting until one of them showed signs of movement, pointed to their being friendly but cautious.

Acting on this assumption he looked directly at the speaker and smiled.

"Yes, I'm awake now," he said casually.

"And so am I," he heard Thorne say, matching his tone.

"Fine," the winged man said. "We'll untie your legs so you can walk. Then we must take you to Oldred to see what is to be done."

"Who is Oldred?" Lansing asked as fingers started unraveling the grass strands around his ankles.

"You don't know?" the winged man asked. The others were watching with great interest. "He's our leader. He will want to know about men who shed their skin." He pointed.

Lansing and Thorne sat up and saw what he meant. Ted Grant's helmet and suit lay on the ground where they had been abandoned. Their eyes widened. They looked at each other in secret warning.

"Stand up," the winged man said. "Soon it will get dark."

Lansing noted with surprise as he stood up that the winged men were small. They were only five feet tall, which made them a good five inches smaller than Balu. They all had the close-cropped hair. Their features varied in detail, one face hinting at one race and another at another, but none of them had eyes as strange as Balu's. In fact, he decided, except for the muscular and efficient-looking wings, they were quite ordinary in appearance. One of them even had normal hands and feet.

"Come on," their spokesman ordered. He led the way.

Lansing recalled the aerial view of the country as he had seen it from the helicopter. Fifty miles in the direction they were now travelling was a range of hills. Before that, perhaps less than ten miles away, was a small lake.

"Bah-loo..."

The wailing bawl broke in on Lan-

sing's thoughts. He looked at the winged men. They seemed not to have heard it.

"What was that?" he asked.

"That," one of the winged men said, "was Oldred."

"Then your leader is Balu's brother?" Thorne said in relief.

The winged men all stopped and looked at him. "What do you know of Balu?" one of them asked in a menacing growl.

"We...chanced to meet her," Lansing said quickly. "She told us her name. Then she flew away."

The winged men said no more, but now the pace they set was much faster. The slope of the ground changed to gradual ups and downs and finally became all downhill. They crossed a clearing that gave a view of the lake. Two of the winged men took to the air and went on ahead.

Speaking in German Thorne said, "Should we try to escape?"

Lansing shook his head and answered in the same language. "No. We probably couldn't for long, and I want to see this leader they have. Also, we'll be missed before too long, and so long as they think our space-suits are skin, they won't try to take them off us. When the search party comes within range of our suit radios we can tell them how to find us."

"What were you saying?" a winged man asked suspiciously.

"We were discussing your leader," Lansing said. "He must be a very great man."

"Then you've seen him before!"

"No," Lansing said. "I was merely judging by the appearance of you and your companions."

"Oh?" the winged man said vaguely. "Well, you're right. He is a great man. He grows greater all the time. Within the memory of man he has al-

ways been great. Some day the lake will be too small for him."

He waited until he saw the effect his statement had produced, then turned his eyes away.

"He must be kidding," Thorne said in German.

"I don't know," Lansing said thoughtfully. "It may be possible. Continued growth isn't half as fantastic a possibility as wings. The most fantastic thing about it is..."

"What?" Thorne said.

"If Balu is his sister—"

"That would make her far older than she looks!" Thorne said.

"That's true," Lansing said. "But what I was thinking was, that would make it possible that she is the mother of all these winged men."

THEY STOOD close together on the sandy beach, their eyes searching the undisturbed surface of the lake. A quarter of a mile out was something small and white. It hadn't moved since they arrived.

The winged men seemed to be waiting.

Rapid movement overhead attracted their attention. It was several of the winged people. Two of them were carrying a third between them. One of his wings was half severed. It was the one who had tangled with the helicopter blade.

The group darted out over the lake toward the thing that stuck out of the water. As they neared it, it emerged further from the lake.

Lansing and Thorne stared in stark unbelief. It was the profile of a face. Bloated almost beyond recognition it was still a human face. And from the indeterminate chin to the sloping top of the forehead it was at least a hundred feet.

The group of flyers slowed to

hovering flight above it. Screams drifted across the intervening water to those on shore. Abruptly the wounded flying man was dropping. Still screaming, he was trying desperately to fly with his one good wing.

The gigantic face elongated another ten feet. The flyer vanished within the maw of the enormous mouth. It closed, cutting off his screams. At the same time, the surface of the water was convulsed and a human chest acres in extent broke the surface.

Another group of winged people appeared over the lake. Four of them were teamed together over the body of a large animal. The mouth opened again to receive this additional morsel.

Dazed at the sight, Lansing looked around him—at the peaceful trees, at the white sandy beach, so normal in the framework of concepts he had built up about the Earth. He looked back at the monstrous form in the lake and squeezed his eyes tightly together, shaking his head. When he opened them again mild waves were washing up on the beach.

A winged man grinned at him. "We all get there eventually. I think you two will be next, though. Oldred will be curious about your taste."

"Now?" Thorne asked Lansing tensely, in German.

"No," Lansing said. "I think our guns can paralyze that thing's throat if we get dropped in. I want a chance to observe it and see if it still has intelligence. It must have taken centuries for it to grow that large. Maybe it knows what happened. I want to talk to it."

"Bah-loo..." The call was a deafening roar. But now there was an understandable reason why it had carried ten miles!

"You want to talk to it?" Thorne exclaimed.

A SWIFT figure darted into sight from over the treetops and landed lightly on the sand after seeming certain to be about to crash. It was a child, a girl. "The hairdred is coming!" she shrilled. "The hairdred. This way." She turned and leaped into the air, her wings taking deep bites for quick altitude.

"Hairdred!" It was a murmur of fear.

Lansing felt the ground under him quiver the way it had when he had first regained feeling after the paralysis. The winged men looked fearfully toward the trees. Two of them seized him between them and leaped into the air. Their wings beat frantically as they rose a few feet. With cries of disappointment they dropped him.

He landed sprawling on the hard-packed sand and had a fleeting glimpse of Thorne doing the same. Then everything was blotted from his mind by the sight that confronted him.

The creature was eight or nine feet tall. Its arms were long and its legs were very short and bowed. From its broad shoulders to its pink toes it was covered with a mat of hair.

But it was its face that drew Lansing's eyes with hypnotic horror. A face that was entirely human, on a large scale, and perfectly proportioned—lean cheeked, a firm cleft chin and beautiful nose. By itself and without regard to size it was definitely a pure British type. Except for the eyes. The pupils and irises were black. What should have been the whites were a mottled dullish brown. Large veins formed networks over their surface. In contrast to the face, which seemed molded in lines of gentleness, intelligence and humor, the gleaming jet centers of the eyes seemed to hold the ultimate spirit of hate and evil.

They added the touch that made the face that of a fallen angel; a Sathanus. In keeping with the giant beast form of the body.

Thorne had seen it too. The initial moment of surprise was over for them and for the hairdred. As it raised one of its legs to step forward, both tremendous arms reaching toward them, they fumbled madly with their bound hands at the flaps over their hip guns.

Thorne secured his gun first. He pointed it at the nearest part of the giant anatomy, a leg. The hairdred toppled sideways, an expression of surprise on its face.

One of its hands touched Lansing's legs. Fingers big as jointed forearms wrapped around, squeezing. Lansing screamed at the pain. His gun was out. He pointed it at the arm and saw the huge fingers slacken.

The hairdred uttered the equivalent of a grunt of surprise. It came out as a deep, unhuman bellow.

Both men were now playing their paralysis guns over the monster. Even when it lay completely still they continued, until their frenzied fear abated.

Trembling, they stared at the mountainous bulk.

"Horrible!" Lansing said shakily. "Horrible. Horrible. And yet, it's human. I can still feel sorry for it. Except for C-14 and the inroads it has made in these thousands of years, it would be like us. That face. That beautiful godlike face."

"All I hope is that they find us and get us off this planet," Thorne said. "And when they do, I hope they drop a sunmaker bomb and wipe out the whole ungodly mess."

"Oh, no," Lansing said quickly. "I think—" He stopped and looked up as a flurry of wings descended and the flying men were back.

"What did you do?" they asked, and there was caution and respect in their manner.

"WHAT IS it?" Lansing asked, evading the question. "That girl called it a hairdred. You've called that monstrous thing out in the lake Oldred."

"Oh," one of the winged men said, "all the giants are called dreds. None are like our Oldred."

"I can see that," Lansing said impatiently. "What I mean is, is there a race of giants? Are there more like this one?"

"Race?" The winged man looked puzzled. "What's that? There are more of them, of course. Lu is this one's brother." He pointed at one of the other winged men, who grinned and nodded vigorously.

"Your brother?" Lansing said. "But how can that be? You are so different."

"We are molded by our spirit," Lu said seriously. "The flesh takes the form predetermined by the soul."

"Nonsense!" Lansing said sharply. "Your form is determined by the gene pattern in the egg. And it's unstable carbon, C-14, that has botched up the human strain."

"I don't know many of the words you use," Lu said, "but you are right, according to the teachings. *Cif-Fortean* is the Universal Spirit that molds the flesh to fit the spirit. But you and your companion have very strange spirits indeed. None are like you. Oldred will be interested when we can attract his attention."

"When will that be?" Thorne asked.

"Maybe not for days. Right now he's hungry. We hunters have been scouring the country for days, searching for enough food to satisfy his appetite."

"Why don't you let him die?"

Lansing said. "He's too big. It would be an act of mercy to—"

"But we were created to serve him!" Lu said. "You just don't know what you say. You must be from a far place."

"And him?" Lansing said, pointing to the hairdred.

Lu shrugged. "If he lives, then many lifetimes from now he will crawl into the lake beside Oldred when his legs will no longer support him. Maybe he will kill Oldred. Then his children's children will feed him."

"Oldred once walked on land?" Lansing asked.

Lu nodded. "It's so. Far before the memory of anyone but Balu, our grandmother."

"What is the far place you are from?" one of the other winged men asked impatiently.

"Too far for you ever to have heard of it," Lansing said. "There are many of us, but we came here in flying machines. You know about that, of course. You made our flying machines fall to the ground."

LU WAS shaking his head knowingly. "We do know about it. You must be from the home of the *Cif-Fortean*. Within the memory of Oldred some of our ancestors found it after many days of flight. Only two lived to return. The others were—" He stopped, his eyes widening, and turned to the hairdred. "Made helpless so they couldn't move!"

"What happened to them then?" Lansing said.

"They were taken behind a wall of solid water that surrounded a huge place and covered over the top of it. Though the two waited for many days they never came out."

"So Oldred has said," the original spokesman for the winged men said.

"You are two of the guardians of the *Cif-Forcean* then? You must be." When Lansing hesitated, he dropped to his knees and bowed his head. "I am Paul," he said. "I wish to thank you for giving me the form of a winged man. I have tried to be worthy of it."

The others had dropped to their knees and were saying much the same thing. None of them noticed the change that had come over the hairdred. He had recovered and was lying still, waiting for his chance. Now, suddenly, his gigantic hands shot out. Both Lansing and Thorne found themselves dangling head down with one leg imprisoned in a giant fist.

"And I wish to curse you before I kill you," the deep voice of the giant said, "for giving me the form of a beast so that I am an outcast."

"Stop!" Lansing said, fumbling for his hip gun. "Don't you know there is purpose in everything? We made you as you are because we had a purpose for doing so!"

The hairdred, about to dash them both to the ground, paused. As Lansing had hoped, he was curious, and so long as curiosity remained he would not destroy the ones who could satisfy that curiosity.

"Put us down!" Lansing ordered.

Slowly, reluctantly, the giant gorilla monster with the face of a man obeyed.

Lansing saw that this had increased the respect of the winged men. A plan, an idea, was born in his mind. He gave Thorne a warning look. Then, looking up into the face of the hairdred, he said with great solemnity, "From now on you belong to me and will serve me. And you, Lu and Paul, and your companions, will also serve me."

He paused, searching in his thoughts for something else to say that might

help. It wasn't necessary. The winged men were again on their knees. And the hairdred, his brilliant coals of eyes flashing with a new fire, had also dropped to his knees. "We are yours," he boomed, a world of pride going into the *we*. Tears welled from his weirdly soft eyes. Tears that washed away some of the infinite loneliness of a lifetime of ostracism from the companions of his childhood.

IT WASN'T until later that Lansing and Thorne could talk. The sun had gone down. The moon cast an eerie glow through the trees that made things visible in an unreal way. Thorne had watched the winged men fly to high branches and relax in what seemed suicidal positions, and had recalled his first glimpse of Balu as she slept that morning.

Fred the hairdred was stretched out on his side not far away, callous of danger, his broad shoulders making his relaxed width as much as an average man's height.

Lansing seemed eager to discuss something. Thorne had questions he wanted to ask. Both men talked in German in low voices.

"How did you know the beast would let us down?" Thorne asked.

"Remember when you were under paralysis?" Lansing said. "You were able to hear everything clearly. I knew he had heard us talking and had digested a lot of what we said. Even so, it was just a gamble I was taking while I tried to get my gun out of its holster. And the others, I saw it would be utterly useless to try to teach them the truth about themselves now. Better to use their beliefs to bur own advantage and use them to help us get to the root of what's happened here on our home planet."

"But we know what's happened,"

Thorne said. "The unstable carbon has caused it all."

"Yes. But unless some artificial source kept manufacturing it, it would drop to a minimum before long. Remember what they said about a domed city? My guess is that somewhere here on Earth a group still lives that knows science. I would say that they have atomic piles that are set up to make C-14 and disperse it in the atmosphere."

"But why?" Thorne said. "What would be their object?"

"There's no way of learning that until we find them. Some of the microfilm records of books I've read mention something about groups that believed the only way man could be peaceful was to practically wipe him out, and keep him that way. It could be that some sect of that type gained control of an atom plant during a war and carried their plan into successful operation, and their descendants have carried on the plan. If so, we've got to find that dome city and put a stop to it. In a few hundred years, or even less, the C-14 would drop to a safe level. The various breeds of man would slowly straighten out and breed true. History could start over again. Especially with us of the *Astral Traveler* to guide things and later establish colonies of our own kind here, with birth-control restrictions off so that we could multiply."

"What about people like our friend Fred?" Thorne said.

"It would all straighten itself out. I hope." Lansing smiled. "Fred, the poor devil. Things like that hundred-foot-long monster in the lake couldn't last. I wonder if he'll live forever if fed? I've been trying to figure out his age from his size. He must be over a thousand years old. Maybe about fifteen hundred."

"And his sister," Thorne said. "How could she live as long if she doesn't keep growing?"

"Some other glandular balance. We won't bother about those things. Time enough for study after we find and root out the fiendish thing that's causing this tragedy to humanity. Now, let's get some sleep. Tomorrow is going to be a busy day."

"I wonder how Ted is making out," Thorne said after a long silence.

Lansing sighed. "There used to be micro-organisms that made their way into the body and multiplied rapidly under the ideal environment they found there. One of mankind's greatest battles was against that type of enemy. I venture to say Ted's corpuscles are very busy. It'll be interesting to dissect his body when we find it. Still, maybe he will survive. I've been puzzling about what came over him to behave the way he did."

"I know what came over him," Thorne said dully. "Something that's lain dormant for three thousand years while we traveled through space. Something stronger than—anything."

After a long time Thorne went to sleep, with Balu's eyes vivid in his mind. Eyes that held the secret of life and promised to reveal it to those who had courage.

Lansing remained awake a few moments longer, covertly watching Thorne and understanding far better than Thorne could have guessed. Just as he was dozing off, a thunderous bellow from the lake shattered the night.

"Bah-loo..."

Oldred, too, was lonely.

BOTH THORNE and Lansing slept fitfully. The night seemed full of sounds, and it was the first night outside the confines of a ship for each of them. There was the sound of the

trees swaying in the breeze, the small sounds of night creatures. Once one of the winged men fell off his branch and uttered an involuntary cry of alarm as his instincts made his wings catch hold and keep him off the ground. And Fred the hairdred snored, though it was more like the soft sound of regularly spaced blowoffs from an air tank with a safety valve.

Once, just before dawn, a faint whisper came over the suit radio. "Dr. Lansing," it said. But it was very faint and wasn't repeated.

At dawn Oldred once again took up his petulant calling for Balu. With the first stentorian bellow the winged men awakened. Lansing marveled at the delicate balance they maintained while they stretched their wings.

Fred opened his large round eyes without otherwise moving a muscle. The iridescent black pupils contracted to small dots in the center of soft brown hemispheres as he regarded Lansing thoughtfully.

Lansing returned the stare, waiting. He found it hard to believe that these strange mutations on the human race could be held by superstitious awe. Surely, he thought, a night's sleep will have made clear to them that their variation from the norm is due to the quite understandable action of an element with known properties, and that no supernatural agency was involved.

But one by one the winged men dropped to the ground and bent low in an attitude of reverence, first to him and then to Thorne. When the hairdred finally heaved himself to his feet with a grunt and did reverence as humbly as had the others, Lansing breathed a sigh of relief. It still seemed too improbable to accept, but there it was.

It was Lu who asked the inevitable

question. "Should we bring you food, Dr. Lansing?"

The vision of actually eating ounces of radio-active carbon in food made him shudder. He shook his head, and saw the awe in Lu's eyes increase. He turned and looked at Thorne with a half smile. When no one was looking both men surreptitiously pressed the stud on their belts that popped food tablets into their mouths, and a second stud that raised a tube to their mouths so they could draw in water. The suits were designed to be lived in for periods at a time. It would be another ten days at least before the problem of exhaustion of food, air and water would have to be met.

"No," he said. "As soon as you and your companions have eaten, I want you to find out if Oldred will talk to us. I want to ask him some questions."

IT WAS AN hour later that he and Thorne, watching from the shore, saw Lu pause above the monster and make motions that brought the head further out of the water. Water cascaded from an ear for a full minute in a foot-thick stream. Then Lu dove down on spread wings to land on the ear. Fifteen minutes went by. Then a bellowed "Yes," came from the giant lips. Like a slowed-down tape recorder Oldred said, "Bring them out where I can see them. I'll answer questions."

Ready-made ropes of grass fiber were brought to make harnesses for Lansing and Thorne. They were each carried by four of the winged men to spots four or five hundred feet directly over the mountainous face.

They steeled their stomachs against the awful sight. The toothless mouth was a yawning cavern in a mountain of flesh that bore a strong resemblance to a human face overlaid with

layers of fat. The whitish tongue alone weighed tons.

"Your questions," Oldred said, and the breath of his speech made the carriers waver in their hovering flight.

"How old are you?" Lansing asked.

Winged men farther down relayed the question to Lu who shouted it into Oldred's ear.

Miraculously, a smile quirked across the mountainous face. "Lord, I don't know," came the answer. "A thousand or two thousand years, I guess."

"Do you remember when humanity began to change?"

"In my memory it has always changed, but in my youth while I still walked the land I was told tales of a new spirit that had taken charge of the world many centuries before, molding man's flesh to fit his spirit. I was told that I had a very great spirit, and it must be so."

"When you still walked the land, were there others that appeared like us?"

"I have seen them. But none for many centuries."

"When you still walked on the land, was Balu in existence?"

"She is my sister," Oldred said. "My twin sister. She is like our mother, with her wings, and somewhat like our father with her eyes. When our mother died I was already almost too big to walk on the land, and our mother made her swear she would protect me until I died. That is why she cannot die until I do. And something within me says I will never die so long as *Cif-Fortean* rules the world."

"Where is *Cif-Fortean*?" Lansing asked, aping Oldred's pronunciation of the term.

"It is everywhere, within us and within all living things. It is a spirit

in the air itself. But its throne is within the dome of solid water far to the north of here, protected by— But why do you ask? Aren't you of the Guardians?"

Lansing started to say no. He realized abruptly that that would be the worst thing he could do. Oldred believed he would die if the pile that produced C-14 were destroyed.

"Yes," he lied. "But we were lost, and must find our way back. We must be taken to the dome of solid water."

"It shall be done." Oldred spoke with an air of finality, and promptly dropped back into the water, nearly engulfing Lu.

Lansing's and Thorne's ears were still reverberating from the deafening roar of Oldred's voice when they were set down on the shore again.

THE FLYING men left Lansing and Thorne on the beach with Fred the hairdred. Only one of them returned. Lu.

"I've been chosen to accompany you to the north," he said.

"Only you?" Lansing said.

"Only one of us can be spared. There aren't enough of us to keep Oldred in food."

Lansing stared at Lu. The man wasn't telling the truth. And he seemed most unhappy about going.

"Where are the others?" he said.

"We ought to talk this over."

Lu shook his head. "It has been decided," he said with finality.

"I'll be enough to protect you," Fred said. "Lu can be our guide, flying above the trees to see what's ahead."

"All right," Lansing said.

Thorne spoke in German. "I think they believe whoever goes with us won't come back."

"That must be it," Lansing said in

German. Then in English, "We want to see our flying machines that you wrecked. Then we'll start north."

They started the way they had come the day before. Fred led the way, his enormous shoulders swaying with his walk, seeming entirely animal from in back with his matted head of hair blending with his body fur. Lu spent most of his time in the air, dropping down for a chat occasionally.

It was afternoon before they reached the two helicopters. One had burned, leaving only a charred skeleton of metal. The other had crashed a mile away. Although it hadn't caught fire, it was strewn over a wide area. Neither could possibly be repaired. The radios of both would never work again.

"We'll just have to keep going until a searching party happens to pass close enough for our suit radio to reach them," Lansing said.

For the rest of the day they traveled. The tough grass polished the boots of their space-suits. It also made walking an effort. Fred had a trick of letting his feet bend back so they weren't snagged by the grass, a trick the normal foot couldn't imitate.

Night came. Lu stretched out on a limb. Fred lay on his side, his broad back against a tree trunk. Both were asleep almost instantly.

AND THEN, suddenly, it was morning. Aching muscles slowly warmed up, but the grass seemed a little thicker underfoot and a little tougher. New varieties of trees took the place of the silver-leaved ones.

In the afternoon a river presented a problem. Lu was away for half an hour searching for a place they could cross, and when he found one it took most of the remainder of the day to reach it and cross.

Just before dark Fred stopped suddenly and motioned them to be silent. His black eyes were alight with excitement. Noiselessly he stole ahead until he was out of sight.

A few minutes later a loud frightened bellow exploded in the silence. It was followed by thrashing sounds. Frantic bawling noises sounded. Then for a while there was nothing but silence.

The hairdred returned dragging the body of a huge nonhuman creature behind him. "Food," he said.

For the next few minutes he was busy tearing off the skin. When that was done he tore out huge chunks of meat and offered them to Lansing and Thorne. When they shook their heads, unable to hide the disgust on their faces, he grinned broadly and sat on his haunches while he gulped down large chunks of the steaming raw meat.

Lu had returned unnoticed. He perched on a limb and watched Fred, and when the hairdred had finished eating all he could hold and had stretched out to sleep, he dropped down and ate his fill.

During the night other animals came. Each time Fred awakened and snarled. And each time the animals slunk away, their gleaming eyes glaring hate.

In the morning Lu was gone.

"HIS PROBABLY just scouting around," Lansing said cheerfully.

"No," Fred said, his huge features mirroring the tragedy of a twice-broken heart. "I can see now he intended to leave us from the start. He was to lead us far enough away so that we couldn't find our way back, and then leave us."

"But why?" Lansing said.

The hairedred shrugged without answering.

"We'd better go back," Thorne said. "We have no idea where to go from here. No use going on."

"Maybe you're right," Lansing said. "A search party from the ship will find us easier near the wreck of our helicopters anyway."

But an hour later they realized how impossible was their plan to return. They were lost. Too late they saw how completely dependent on Lu's guidance they had been. They couldn't even find the river they had crossed.

Fred, in spite of his beast shape, was peculiarly lacking in a sense of direction. Or perhaps he was deliberately playing dumb because he didn't want to go back. Lansing thought of that, but didn't want to antagonize the brute by saying so.

When night came again they might have been miles or merely a hundred yards from their starting point of the morning.

Clouds had been gathering during the afternoon. When the sun went down it began to rain. For a while Thorne threw off his depressed mood as he and Lansing marveled at the peculiar phenomenon.

Fred sat on his haunches and listened as they theorized on how the raindrops were formed. He seemed to be trying to follow their lines of thought. When they held out a hand to watch the drops spatter on it he did the same, his enormous face lined with concentration.

The talking grew sporadic, finally ceasing altogether. Lansing realized suddenly that he, and Thorne and Fred, were each lonely. For himself, he was lonesome for the comforts and the ordered surroundings of the spaceship. The rain thumping against his suit and the plastiglass of his helmet had a mechanical rhythm that re-

mined him too vividly of the rhythms in the ship.

Thorne—it was impossible to guess what he was lonely for. There was something about this Earth that had a strange effect on the emotions. He had felt it several times.

The sound of the rain, for example, as it fell on the leaves of the trees and on his suit. It made a distinct and strange impression on him. He recalled now that moonlight had had a strange effect on him too.

He had read in some book about something related to that. It came to him after a moment. An ancient pseudoscience called Astrology. It had been just a brief article. Its basic tenet had been that the stars and the planets and the moon had emotional effects on the human mind that could be charted. It was analogous to the known effects of endocrine cycles on the emotional makeup. The article had suggested that any basis Astrology might have in fact was probably directly attributable to the endocrine rhythms.

But now that he was actually here on the Earth, Lansing wasn't so sure. "There are subtle forces here that work on the mind," he decided sleepily.

He opened his eyes to a scene of glistening splendor. Things around him seemed brighter and cleaner. There was a new feeling in his body. It came to him with surprise what it was. He had become accustomed to the long hard work of walking all day. For the first time since he had set foot on the Earth he felt thoroughly rested and fresh.

He got to his feet and looked down at Thorne, still asleep a few feet away. Suddenly his eyes contracted. The hip holster at Thorne's side was empty. Its gun was gone. He reached to make sure his own was still in

place. His hand encountered an empty holster.

There was a deep animal grunt behind him. He whirled. The hairdred, Fred, had awakened and was getting to his feet.

"My gun," Lansing said harshly. "Did you take it while I was asleep?"

"Gun?" Fred said. "What's that? No, I didn't take anything. Is something gone?"

Lansing studied him with narrow eyes. Either the human monster was a superb actor, or something else had stolen in and taken the two guns. Had it been Lu? Or had something else taken them?

He searched through the trees with his eyes. There was no sign of movement.

"**W**HAT'S THE matter?" Thorne asked sleepily.

Lansing spoke in German. "Something stole our guns while we were asleep. I don't think it was our companion. It may have been the one who was with us. Or it may be something new. But we must be careful that our companion doesn't learn we are helpless without them."

Thorne nodded. "Right," he said. "But I disagree with you about our companion. I think he did it. He's shrewd behind that air of dumb innocence."

The gleaming black eyes were looking at them with a patient puzzling light as though trying to decipher the strange words. They lit up at a sudden thought. "I wonder," Fred said. "Maybe Lu left us yesterday because we were near where he was taking you. Maybe he thought you could go the rest of the way without him."

Lansing shook his head. "I doubt if we've gone fifty miles from the lake. It may be only twenty miles. If

it were near here we could have seen it when we were up in our flying machines."

"I saw those," Fred said.

Lansing turned to Thorne. "There's something in back of all this," he said in German. "I'm beginning to think we've been lied to and deceived all along. In fact, I'm sure of it. Maybe there isn't even any domed city. That might have been an invention to get us started on this journey to get rid of us."

"Why would they do that?" Thorne asked.

"Remember our status before we used our guns on this companion we have here?"

"We were prisoners."

"And suddenly we were revered personages, the most irresistible form of flattery. And suddenly again we were completely deserted and lost."

"In retrospect it does sound that way," Thorne said. "Do you realize that in a few more days, unless we're found, we'll have to abandon our spacesuits?"

"That doesn't concern me as much as the reasons why we've been treated as we have. How would they know we couldn't find our way back? For that matter, is it conceivable that our companion, born and brought up not far from here, would become lost? There's only one really sensible thing that could account for what's happened. If they wanted to talk with the monster in the lake without our overhearing they would have to make sure we were twenty or thirty miles away, out of hearing!"

"You are quite correct."

THE NEW voice, speaking German, sounded over their suit radios. At the same time the hairdred's head turned, his huge black eyes looking through the trees.

Lansing and Thorne followed the direction of his gaze. They saw a slight movement. It resolved itself into a figure approaching on the ground. A figure in a spacesuit.

Or was it a robot?

It had two legs and two arms, incredibly long in proportion to body length, and encased in glistening cream-colored plastic. It had a spherical headgear that reflected light in flashes from its outer surface like plastiglass. But it wasn't transparent. Its inner surface was silvered.

"One-way glass," Lansing said, disappointed.

There was a soft laugh. "Sorry," the visitor said in German. "It's standard equipment."

He was taller than either Lansing or Thorne. His legs were four feet long, his body two feet long, with his head adding another foot to his height. Strapped to his back was a helicopter lift.

Two guns nestled in holsters at his hips. They were smaller than those Lansing and Thorne had had, but of a similar design.

"Now then," he said in German, his voice abruptly impersonal, "answer a few questions. And tell the truth. We thought we knew of every dome in the whole world. Evidently we don't. Where are you from?"

"We're from a spaceship," Lansing said. "The *Astral Traveler*. My name is Dr. Lansing. This is Andrew Thorne."

"There was such a ship," the stranger mused, "built three thousand years ago, that left the Earth. It was never heard from again. Don't tell me.... You do have the ancient norm in shape. It's just possible."

"This is something. By the way, my name's John Baker. We'd better get you to the dome so you can get

out of your suits and have a good bath."

OTHER SHAPES identical with John Baker were approaching through the trees now. Baker's body turned toward the hairdred Fred.

"You will go back to your reservation at once," Baker's voice ordered in English.

The giant's eyes turned to Lansing, glistening with unshed tears. His firm British lips, reincarnated into flesh from an era thirty centuries in the Earth's past by the eternal shuffle of the deck of Life, opened twice without uttering a sound. Then, "Goodbye, Dr. Lansing." It was choked and muffled. He turned away and started through the trees, his massive frame swaying from side to side as he walked on his squat legs. Dr. Lansing's eyes were moist as he whispered, "Goodbye, Fred."

"It's only a short distance from here to the tube entrance," Baker said.

Surrounded by the long-legged men, Lansing and Thorne were led through the trees. They had gone little more than a mile when they came to a stop. A few seconds later a rectangular section of the ground lifted straight up.

An elevator emerged slowly from the ground. They all stepped on the platform. The elevator sank slowly. When the earth roof had closed, it was dark for a while. There was a sensation of dropping as the elevator speeded down.

Abruptly it was slowing to a stop and light was everywhere, revealing a concrete tunnel and something Lansing and Thorne had seen in pictures, a long car that ran on parallel steel rails.

Baker reached up and gave his mirrored headgear a half turn and lifted it off. His grinning face was thin but entirely human.

"You can get out of your suit now," he said. "We're free of contamination down here."

"No Carbon-14?" Lansing asked.

"Even less than the normal atmosphere of thirty centuries ago," Baker said. "Every atom of carbon within the aquarium, as we call it, was derived from petroleum that had been in the ground for millions of years. We lean over backwards here inside."

The others were taking off their silvered domes and plastic suits. And all of them were so much alike in shape and features that they might have been identical n-tuplets.

"Go ahead," Baker said.

Thorne took off his helmet and breathed deeply. "Wonderfull" he said.

Hesitantly, Lansing did the same.

The car started and was quickly travelling at top speed, the walls of the tunnel blurred as they shot past. At regular intervals the tunnel widened to a momentary glimpse of a loading platform.

"Other exits," Baker explained. "We have subways radiating out in all directions from the dome. The dome itself is something we're quite proud of. It was built by laying it over the surface of a large hill a little at a time, transplanting the vegetation to the outer surface as it was laid. Vertical shafts were bored and filled with reinforcing rods and then concrete. When the whole dome was completed the hill was mined out from underneath. Not even daily survey flights of enemy planes could have detected its construction. That was done perhaps less than a century after your ancestors on the *Astral Traveler* left, but we're still proud of it."

"That's something we want to find out about," Lansing said. "The

picture I have so far is not one I can sympathize with. As I understand it, there is an atom pile in operation that keeps the air, and consequently all life outside the dome, contaminated with radio-active carbon. That could only be so if it were done deliberately."

"You're tired, Dr. Lansing," Baker said.

"And upset," Lansing said. "But I still want to know if that's right."

"Let's put it this way for now," Baker smiled. "Not so much deliberately as from necessity. You're a scientist. Suppose we let it drop at that until you have had time to rest and get at all the facts. Your strain of humanity has been away from the Earth for three thousand years and is completely out of touch with us and our problems. Don't you think it unfair to form snap judgements based on values that are now, at best, unknown?"

"All right," Lansing grumbled. "I agree I'll be in a better mood to observe after a good rest and some decent food. Pill energy isn't satisfying. But I'm warning you ahead of time that neither I nor any of us from the *Astral Traveler* will show any sympathy toward a plan of deliberate contamination of everything outside a protected dome."

"THIS IS more like home, isn't it?" Lansing said to Thorne after Baker had left them. But before Thorne could answer, a knock at the door jerked both men around.

"Come in," Lansing said.

They watched as the knob twisted and the door opened slowly. Thorne saw who it was first and gasped.

It was Balu, clad in a protective suit with thin transparent plastic over her wings.

"Hello," she said hesitantly, -smil-

ing. "I wanted to meet you, and tell you that I brought your companion back to you. I didn't understand. I'm sorry."

"You brought Grant back?" Lansing said. "Where is he?"

"In the dome hospital. He's being decontaminated. You see, I thought he must be from another dome. An enemy one. I had no way of knowing anything else, did I? Everything pointed to it. The pile-powered airship hovering in the air...."

"You—you're wearing a suit," Thorne said.

"Of course," Balu said. "When I'm in the dome I must wear it to keep from contaminating the dome atmosphere. Would you like to see Ted? He's quite ill." She smiled ruefully. "I guess we have a few bugs his system isn't equipped to handle."

"Lead the way," Lansing said.

"He looks terrible," Balu explained as they walked down the corridor. "He picked up some ancient disease called spotted fever that the human race has been immune to for ages. But he'll be rid of it in a matter of hours, and they're decontaminating him. Flushing him out thoroughly. Very little C-14 will have lodged in him, and the doctors say it won't affect his offspring. But the dose he had was enough to make him crazy enough to lose himself like this. But he'll be all right now."

"Afterward," she said, "I'm to take you to the banquet they are making ready for you."

IT WAS a large room, perhaps thirty by fifty feet, with a fifteen-foot ceiling and paneled walls that several artists had spent their lives decorating. A large horseshoe table went around the room. A smaller table was at its apex. Every seat was filled except those at the head of the

smaller table, where three empty chairs stood.

Balu led the way there and sat on the backless stool between two hand-carved seats that had obviously been reserved for Lansing and Thorne.

They sat down. Their eyes roamed the hall while their minds tried to accept what they saw. It defied acceptance. There were two hundred people. They were quite obviously cultured, civilized, and intelligent. They were dressed in attire that had an approach to uniformity of style.

Balu stood up and raised a hand for silence.

"Ladies and gentlemen of the Council," she said. "I wish to introduce Dr. Lansing and Andrew Thorne, of the spaceship *Astral Traveler* which has just returned to the planet of its birth after a journey of three thousand years."

Lansing looked at the long line of faces. In the whole room there was no distinguishing feature that could be called animal, other than Balu's taloned paws of hands. But the wildest flight of fancy could not have conceived of the variety of shapes represented there.

"Dr. Lansing and Mr. Thorne," Balu went on, "are representative of their race, our parent race, just as each of you is a male or female of each one of our stabilized forms." She flashed a warning smile to Lansing. "Right now, our guests are hungry. I'd suggest we all eat. Afterward we can get acquainted with the star travelers."

Neither Lansing nor Thorne noticed the food he ate, except to note that the potatoes had a better flavor than those grown in the tanks on the *Astral Traveler*. The other vegetables were also of good flavor, but strange. The meat was laboratory beef very

much like that he had eaten all his life.

WHEN THE plates had been taken away, a man sitting across the table from them who had seemed quite short stood up. His legs were pipestems five feet long. His features were crowded in under a bulbous forehead from under which gazed quite normal blue eyes. When he spoke his voice was a baritone, clipped and efficient.

"I have been made acquainted with your reactions to us here on Earth so far," he said. "As President of the Council, I have been delegated to give you a quick picture of what's happened since your branch of the race left the planet.

"Briefly, there were several global wars: Atomic weapons were a terrible thing. The human race was not ready for them and perhaps would never be ready for them. About two centuries after your ship left, the final bid for world supremacy was made by one of the race-conscious nations. It chose the best of its population and built protected domes for them to live in. It then put into operation a plan no other power group had dared try. Universal contamination. It chose radioactive carbon as being the easiest contaminant to produce in great quantities, and the one that, in the form of carbon dioxide, would spread all over the world. Experiment had already shown that a rather small concentration of it would be disastrous. Experiments on small animals had shown that almost invariably in two or three generations the offspring were so deformed they were born dead or were unable to successfully grow to adulthood.

"Further, C-14 would die out more rapidly than any other of the workable radioactives, so that when the

clean-up campaign was over the world could be restored to habitability and repopulated with this one race of people.

"For over twenty years they built up their supply of radioactive carbon, while they were constructing their domed cities along the same lines as this one we live in. Then, without fanfare, they released it. Of course it was immediately detected. That was to be expected. It wasn't in lethal quantities. It was presumed it would be quickly absorbed by the world's forests. There was no alarm. In fact, no one knew exactly what country had released it.

"It was considered impossible for enough to be produced to do any real damage. Too late it was found out that this was a false conclusion. Too late other countries built domed sanctuaries. And then what this country had expected happened. In the battle to live in those sanctuaries against C-14, they became citadels under constant attack, changing hands often, with their inhabitants massacred. That happened to some extent even in the country that masterminded the scheme, but the planners had hidden the nucleus of their planned humanity well, and it remained for the most part undiscovered and safe.

"In five hundred years the human race was reduced to total savagery, and its numbers reduced to the point where whole bands of savages could live out their lives without meeting another group. Mortality was high, and continually growing. It is estimated that only one out of five thousand born alive was capable of living for more than a few minutes.

"But Nature had an answer ready-made for this attack. By the very nature of things, the evolution produced by C-14 explored every possibility and every path of possibility, upward

and downward on the ladder of change.

"Genius persisted too. Here and there a mastermind perceived the Whole. Wrecked dome cities were repaired. Petroleum was the source of stable Carbon. And in this environment of stable Carbon new varieties that had come into existence were developed into permanent human strains. You see many of them here. There are others in the interconnected domed cities of the American continents.

"With the growth of our new order of humanity grew a realization of the errors of the past. With it also grew a perception of the destiny that the last of the aggressors had embarked the race upon: the searching out of all the races potential to mankind.

"We could not turn back the pages of time. We could either arrest the progression of evolution by permitting the C-14 to die out naturally after we sought out and destroyed the criminal race, or we could carry on until it became certain no new mutation could be produced.

"By vote we chose to continue the experiment. Under our charter of world government at the turn of every century, we vote again. So far that vote has been for continuation. Do you have any questions?"

"DID YOU ever find the hidden cities of those who started all this?" Lansing asked.

"A thousand years ago the last was found and all its inhabitants destroyed."

"Then there are no more like us on the Earth?"

"No. The parent strain was unstable to begin with and didn't survive. I am of the opinion, though, that the world will welcome you of the *Astral Traveler* back into the family of races

and make a place for you as you are. Am I right?"

There was thunderous applause.

Lansing stood up slowly, his face expressionless. "You must realize," he said, "that I am not actually a spokesman for all of us. In fact, Mr. Thorne here, and I, and our companion now in your hospital, are merely scouts sent down to find out what's happened on the Earth. Therefore, I think the proper course would be for us to return to the ship we landed in and inform our superiors of what we have found. They in turn can make what decisions they think best."

The spokesman stood up again, smiling. "I agree with you," he said. "But we would like to know what you think personally. We realize of course that it must be a shock to you. Human values have changed. It was inevitable."

"Yes," Lansing said. "They've changed. But..." He paused and looked over his audience. Suddenly he smiled. "I'm sure you won't have anything to worry about."

There was more applause. A buzz of conversation rose in the room. Lansing caught snatches of it and found none of it to be in English. He had wondered about English being used after so long a time. Now he guessed that it was probably a dead language preserved or revived because all the scientific knowledge of three thousand years ago was in that language.

The spokesman stood up again. "Just as you cannot speak with authority for all your people, so I cannot at this time. But just as you hold out hopes of friendly reunion, so I feel strongly that I can promise full incorporation of the inhabitants of the *Astral Traveler* into the society of Earth's humanity with full citizenship."

IT WAS three days later. The ship had been contacted by radio and was waiting. Grant, though still weak, was well enough to travel. His space-suit had been found and brought to the dome city. And now an atom-powered helicopter from the city's own fleet, loaded with dozens of reels of film and other carefully chosen samples of Earth civilization, was ready.

Lansing shook hands with one after another of the varied humans, a smile carefully fixed on his lips, his eyes unexpressive. And each was warm in his invitation for him personally to return.

At the end of the line was Balu. Lansing took her thick paw clumsily.

"I wish to talk with you a moment before you leave," she said.

"All right."

They moved away from the others.

"You are a little like me," Balu said abruptly. "It may be because you have lived a long time yourself."

"I'm sure you overrate me," Lansing said, smiling.

"No. I don't think so." Her violet eyes were serious. So close to her, seeing her eternally youthful face, he found it difficult to believe her centuries old. "I don't think so," she said. "You have no doubt noticed that they carefully avoided mention of the fact that I am one race of man that hasn't succeeded in breeding true. The immortal who doesn't achieve immortality by continued growth. Maybe it's because there has never been a male of my species. But it does make me an alien among them. Just as you are."

"Nonsense," Lansing said cheerfully. "I've watched them. In a way, you're their queen. In the city and outside. All of them."

"Their pet," Balu smiled. "Take me with you, Dr. Lansing."

"Take you with me!" He blinked at her in surprise. "Why, my dear, I—I'll—"

"You won't be back," Balu whispered. "I know it. I see it in your eyes. Take me with you. I'll undergo surgery to remove my wings. I'll have these animal hands amputated and wear artificial ones. I'll wear dark glasses to hide my eyes."

"But I will be back," he insisted.

She shook her head. "You will tell them of Oldred and the hairdred. They will see things in those movies you are taking along. I know what will happen. Even if the others don't. And..." She rested a paw on his chest. "I have lived a long time. I have given myself to children to further their game of exploration of the paths of evolution of mankind. They are all children. Babies in a mixed-up cosmos where they try to convince themselves that everything is all right so they won't be afraid. But now I am tired. I want to rest. Take me with you...."

She faced him straight. As he looked into her eyes and realized what she was trying to tell him, he felt like crying. "My dear," he said softly. "It would never work out. We belong to two different times. And it would be wrong to try to put them together. Believe me—it's better this way."

She stood motionless.

"Goodbye, Balu," he said gently. "Goodbye, my dear. And thank you."

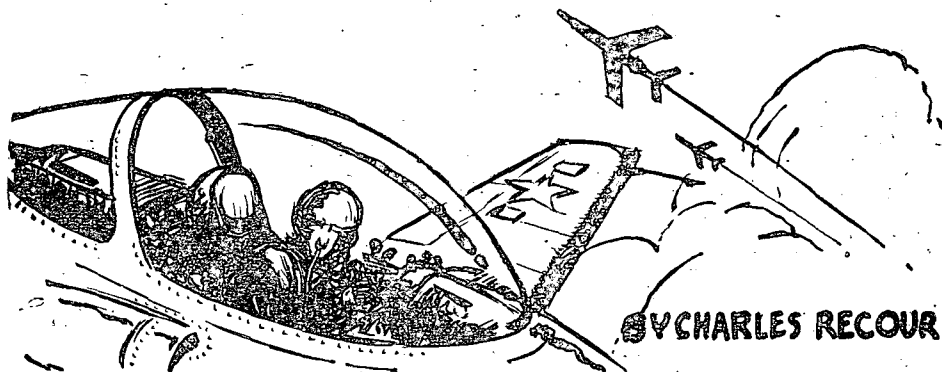
When he stepped into the helicopter he turned and looked over the heads of the farewell committee. Balu was still standing where he had left her.

He lifted his hand and waved.

For a moment she didn't move. Then her arm came up. She waved hesitantly, and smiled tremulously.

With his eyes still on her, he closed the door.

What's All This "Vector" Business?



YOU'RE TELLING about the automobile accident:

"See," you say, drawing a little arrow on the sheet of paper, "I was going straight North like this about thirty miles an hour." You draw another arrow at right angles to the first. "Then this guy comes at me like this. He must have been doing fifty at least. Well, his right front bumper caught my rear one. It really spun me around and he shot off at an angle like this. See, here, look at this arrow...."

When you want to show somebody how a mechanical action like that occurred, it's the commonest thing in the world to grab a pencil and start drawing little arrows showing forces and directions. If you're not too familiar with mathematics, you might be surprised to learn that you're doing a rudimentary form of "vector analysis".

The word "vector" is coming into everyday speech, prompted partially by the increasing interest in science and partially by the need to refer to things more exactly. The fighter pilot says, "...the MIG vectored in on me from eight o'clock...."

Vector analysis is an extremely appealing branch of mathematics because it is so directly applicable to physical problems. The ideas behind it are simple. Certain quantities, such as velocity, force, electric field, and so on, do not only have a magnitude or size which must be described by a number, but they also have a *direction*. Such things are called *vectors*. For example, a velocity is a vector; you say, "I was going thirty miles an hour straight North...." If you give just the speed, you don't tell the full story. You have to give the direction. Hence, the idea of vectors.

Vectors are usually drawn graphically as arrows and labeled with a number de-

scribing the "scalar", or numerical, part. A nice appealing facet of vector operations is the fact that the arrows can be drawn proportionally to the numbers and of course in the right directions, and so it is possible to combine vectors by simple graphical methods. This is appealing to anyone with an engineering turn of mind.

Vector's stem mainly from the works of the mathematicians: Hamilton, an Irishman; Gibbs, an American; and Grassman, a German physicist, during the latter portion of the nineteenth century, found vectors were just what they needed for their abstruse ideas, and the result is that a highly developed mathematical system was set up. Nowadays it is impossible to study physics or engineering without knowing something about vectors. In fact, vector analysis is the best way of handling modern science.

There are a vector algebra, a vector calculus, and numerous similar branches, usually not too difficult to grasp. When these techniques are learned the student has at his command a tremendously powerful tool. Problems which, without this tool, seem impossibly difficult, turn out to be easy.

Vectors have unusual properties. They may be added and subtracted, of course, but not simply—the famous "parallelogram rule" must be used. Similarly, in multiplication of vectors, "vector A times vector B does not equal vector B times vector A". Many curious paradoxes arise out of these relations, and usually the beginner's greatest difficulty is appreciating these strange rules.

Vector analysis is a branch of mathematics whose utility is becoming ever greater. The very elements of it have even been suggested and used in some progressive grammar school!

MONKEY IN THE ICE BOX

By Gerald Vance

They really had something here: about the finest prize a space raider could get—until they looked in the freezer!



IT BEGAN out in free-void near the Mars orbit when Scorp and I spoke this derelict. Lucky? We could hardly believe our eyes. Scorp picked her up on the radar screen and whistled me out of my bunk and I came forward. There she was, sleek and gorgeous, a big intergalactic six-jet job turning end over end, tired and lazylike; riding a slow orbit—

so slow a nursemaid could have caught her while pushing a perambulator.

I grinned and Scorp's eyes glowed. Naturally—us with a little one-jet local job and knowing the laws of salvage the way we did. And knowing also that a boat going end over end was—nine times out of ten—deserted.

Scorp, always the dreamer, was crooning, "We live right, boy. We just



The interior of the ship seemed to erupt into a welter of fury!

live right. A thousand tonner if she holds a pound. And with Plutonian thrad ore selling at sixty units a hundredweight in Detroit."

"Easy, son. We haven't got her yet. We may not even be able to scrape up the breakage. It comes high on boats like that." The breakage is what it costs to pay off the Space Authority charges, the taxes, and any prior claims against a derelict before a salvager can get clear claim.

Scorp grinned. "Relax, Joe. It just can't happen that way—to us. We live right and keep ourselves pure. I tell you we're in."

While Scorp held abeam of her, I went to the equipment lockers and got into a suit. I checked two grav-plates for charge, put them on and then pushed a grav-hook into the port airlock.

I followed it out and then went through the shell door and slapped my plates against our hull and swung out the hook.

It got the derelict boat just under her lower jet and I pulled her to an even keel with just the power of my plates holding to our hull.

From here out, it was a two-man job. Scorp set the controls at inertia pitch with a drift equal to that of the derelict and got himself into a suit. He pushed two big grav-bars through the port and I could almost see the grin that went along with the words over my radio. "Lucky we just happened to have these bars along."

It sure was. As a matter of fact you'll find a pair of grav-bars in every one-jet, limp-job plying the Lunar lanes. They're bought and stowed away against the chance of finding a derelict someday. It's the one-lunger's only hope of better things. Like a ticket in the old lotteries.

I held the gray-bars steady until Scorp came through the lock. Together

we pushed them against the derelict's hull on each side of her port and then locked them to our own hull. We pulled her up close, shortening the bars until our little *Nancy Anne* looked like a barnacle glued to her shining side.

THE TOUGHEST part was over now. With the boats anchored close to each other, we slipped down through the narrow leeway into our own port and finished the job; hauling the two ports tight together and locking them with plastic packing. We got out of our suits, Scorp chuckling like a Mercurian clawed owl. He extended his arm. "Pray wouldst accompany me to the promenade deck for a saucer of coffee and a cigar butt?"

I took his arm and we walked into the big baby's airlock.

But here the clowning stopped. We each had a hand-gun, for emergencies, and we were on our toes when the air valve stopped hissing and the inner door swung open.

The long companionway stretched out ahead of us. It was dead quiet, but it wasn't empty. Down the line, in the order of their placement, I could see an overturned chair; a table in two pieces, split down the middle; the steel drawer from a chest in one of the cabins.

"Looks like there's been a battle."

"Maybe some guy hunting his collar button. Let's have a look-see."

We had a look-see and found the ship had been gone over from stem to stern by some very untidy people who didn't care how they handled other people's property. And the boat was jumping with dead men. In the galley, we found the cook with a cleaver in his hand and another parked deep in his skull. Two dungareed crewmen were dead in the mas-

ter-jet stoke chamber. One had been kicked to death. The other's neck was broken. A white-capped boy—probably an astrogator—met the grim reaper head-on in the social hall. The top of his skull had been smashed in with a feeder bar.

"A luxury setup," Scorp muttered. "You could run this tub with nothing but a blonde for company. The crew was strictly for swank."

We found our last dead man in the pilot room. He'd been shot between the eyes—right under a bright green turban that set off his baggy gray-silk pants and pastel jacket.

"We're sure taking over a dilly," Scorp said. "You think maybe Space Authority will tag us for this little job of wholesale slaughter?"

"Why should they? We're peaceable. Let's reseal this tub and head for port. I don't like the company."

SO THAT was what we did. We got back into the *Nancy Anne* and overloaded her jet until I was afraid we'd blow her tail off. Everything held, though, and we hauled into Mars City and dropped the big ship down on a ramp with our little gal twanging her rivets and spitting deep purple.

We reported to the Port Authority and got ready for stiff questioning. A curly-headed attache who looked like he belonged in high school came in finally, after letting us sit for two hours. He offered us each a cigarette and lit one of his own. He said, "You boys seem to have hit the jackpot."

"She's a nice ship," I admitted.

"The *Space King* but of White Sands, U.S.A. The latest thing in intergalactics. You boys kill everybody?"

I said no, we hadn't killed anybody, and Scorp said: "You should know. There were too many. We ain't

that big."

This damp-eared aide let it pass. He said, "We spaced a report from White Sands. The turbaned corpse was a Venusian oriental named Cordat Singh, an adventurer who slipped through several shady escapades with a partially clean nose and plenty of unicredits. He blasted off three months ago from White Sands on DU clearance papers. The authorities figured he knew where he was going but there was nothing they could do about it."

Scorp said, "Not to change the subject, but what do you think the breakage will be on that boat?"

The aide blew a cloud of smoke at the ceiling and said, "There was a Space Bureau report attached to the microgram on Cordat Singh. There was word out around he'd been swindled recently by another oriental clique. He paid a mess of unicredits for a space directional on a small three-planet family out beyond The Great Bear—a hard family to find. Maybe that's where he came from."

I asked, "Did you check his monoflight plate?"

The young aide shrugged. "No. That's not our job." Now he glanced suddenly at Scorp on a delayed take. "Oh—the breakage? Well, a rough first estimate indicates around ten thousand unicredits."

Scorp looked at me. I looked at Scorp. We both looked at Downy Ears. He smiled. "Too much for you boys to handle?"

"A thousand would be too much to handle."

He got up and ground out his cigarette. "Well, you have ten days before Space Authority asks for bids. Where are you staying?"

"We'll be at the Carol Plaza."

"Yeah," Scorp said glumly. "They got a good bar in the basement. And

very homey. The bellhops'll carry you upstairs cold for half a credit."

WE WENT into the Carol bar to mourn—a couple of one-lungers who had just missed the jackpot by about nine thousand unicredits. We had two stingers to loosen up our tensions. Then two more to dull our inhibitions so we could do some really serious mourning. After we finished the second two, I heard a soft, cultured voice by the bar at my elbow. It was talking to the barkeep. It said, "Two more of the same, you, for my friends."

I cocked an eye and saw the voice belonged to an oriental turbaned in bright orange and mustached with a thin pencil mark along his upper lip. He smiled without moving a muscle in his face—a good trick if you can do it, and he could. He said, "Please to accept introduce," and I knew he was a Venusian. "Donat Singh, I. One who wishes to say good luck, you, on salvage."

Scorp cocked an eye. "You know a hell of a lot awful fast."

The oriental bowed. "Very large salvage, you. Get around swift. Very short unicredits, you?"

"No unicredits, us."

"Would please to advance same, I."

We said, "Huh?" in the same breath.

"One condition, I. Request charter first voyage."

I turned and said, "Look—this doesn't meet. We can't raise the dough so the boat will be bid in. You could get it for yourself. Why help us?"

"Please to understand, you. Others will bid. Do not wish ship, I. Only first voyage. Risk of loss in open bidding great."

Scorp and I looked at each other. This joker evidently wanted the first ride on our ship and was willing to

pay for it. Why should we analyze and hunt for flaws? Plenty of time for that when we had title to the baby. I turned to Donat Singh and blessed the planet Venus for producing such as he. "Are agreeable, we. Thank you much. Are your servants, first voyage."

He produced a wallet from some place in his very loose purple pants and began thumbing our unicredits. He thumbed until there was a heap of them on the bar. When he put the wallet away it was still fat. He gave us that smile again and I looked to see how it was done, but I didn't get it. He said, "Suggest you haste to Port Authority, with breakage. Will be at residence, I, waiting to bow low at entrance, you."

I clawed up the money and got off the stool. "We'll be there as soon as we can. Where?"

He handed me a card, turned and walked out.

Scorp's eyes glistened. He is ever the dreamer. He crooned, "Neptunian ice-tiger fur into Paris at a thousand units a pelt. Let's go buy, baby."

We went out arm in arm.

Downy Ears was still in charge, looking as though he should be home with mama. He said, "Well, that's fine—just fine. An oriental inquired here and I directed him. Orange turban?"

I was thumbing the money. "Then one of these is for you."

He shook his head. "Oh, no. Glad to be of service."

We paid up and waited half an hour for title. He brought us seven hundred credits' change and Scorp asked about the stiffs.

"No trouble there. The Space Bureau isn't too interested. They're glad the ship went out DU from White Sands. That includes an automatic protection waiver from all on

board, you know. The prints were microprogrammed and checked. All accounted for."

That wasn't as hard-hearted as it looked. Space is big and the Bureau can cover only so much. A Destination Unknown clearance automatically puts a ship beyond their fatherly arm.

THE CARD said Suite 5A, Garden Terrace. With the stingers biting, we took on a good meal near Port Authority, then caught a gyro for Donat Singh's holeup.

A beautiful layout it was, with a fountain bubbling away in the foyer and nobody around to enjoy it. A moving staircase took us up to the fifth terrace and we found an ivory rosebud for a button beside the oriental's door and punched it.

All the very latest, it was—with one of those service robots I'd heard about but never seen; the kind that answers doors and is death on dirt and dust or any muss around the house.

This robot let us in and then rolled away and left us standing there. It seemed peculiar, but I figured maybe the gadget was out of order. It wasn't. It had just been trying to do two things at once—answer the door and clean up a mess in the living room. We followed it and found it scrubbing like the very devil, trying to clean the rug where the blood had gotten all over it.

The blood had come out of Donat Singh's head, dribbling in a dull red patch and driving the robot nearly frantic.

"Great snakes," Scorp grunted. "Everybody keeps dying." He bent over. Somebody had snapped a flouroslug into our oriental benefactor's head so there probably wasn't much left inside his skull. I'd seen

those flouropellets work and knew why they were outlawed. Too goshawful dangerous. You take them between your finger and thumb, like kids playing marbles, and snap them against something. Whatever you snap them against, they keep right on going until they get inside away from oxygen and they they begin playing hell. A bullet without a gun. You don't need a gun.

The robot shoved Scorp out of the way. Scorp said, "How do you shut a damn thing like this off?"

There were buttons to punch so we punched a few, but we were wrong because the robot turned and rolled into the wall with a crash and tipped over. I reached underneath then and jerked a copper wire I saw and the thing went dead.

But not as dead as Donat Singh, because the robot could be repaired and he couldn't. He was all done and wasn't going anywhere with us on our first trip.

Scorp sat down on a chair and looked a little disgusted. "Venusian orchids docking for fifty units a bulb at Amsterdam and we keep meeting corpses! Killing time!"

"Take it easy. If it wasn't for the Singh we wouldn't have a ship. Give the man a little respect."

Scorp is a dreamer but callous. He said, "Respect he doesn't care about now. Shall we call the Safety Bureau?"

SOMEBODY was moaning. We both heard it at the same time and jerked around toward a side of the room showing an open doorway. We investigated as the moans kept coming and found the next room occupied by a very beautiful number indeed.

She was tall—you could tell that even though she was sort of curled up on the floor—and had chestnut

hair spread around her head like a shining pillow.

There was an ugly bruise on the left side of her head and she seemed just to be coming to. Scorp bent down and lifted her up and laid her on a low divan near where she'd been slugged.

Her big violet eyes were on Scorp as she straightened up. Scorp said, "It's all right, lady. Did you see who cracked you on the head?"

The fright dawning on her face kind of broke up and disappeared as she took both of us in. "You're—you're the men he was expecting, aren't you?"

I said, "If you mean Donat Singh, ma'am, I think he probably was. We told him we'd come."

She shuddered and laid a smooth arm over her eyes. "The—others came instead. He was expecting you so he wasn't on his guard. They—"

"Take it easy, lady," Scorp said. "You just lay there and rest. We'll call law and order."

We started hunting around for a videophone or a wire-comm, but before we found it our beauty queen had a relapse. She hit the floor like a rock and we went to work on her, wondering if maybe she had a delayed concussion of some kind.

Then there was what sounded like help maybe; a musical note that we figured must be the doorbell. With Robert the Robot out of commission with his wires down, I held the lady's head while Scorp went to the door.

A minute later he came back with Downy Ears and a funny look of surprise on his ugly pan. I was surprised too, because Downy Ears didn't look like the same boy anymore. He hadn't aged any except in his mouth, which was twisted into a very businesslike sneer. Scorp was walking in front and our little aide from Space Authority

was coming along behind him with a flouropellet between his thumb and forefinger like he'd enjoy playing marbles with Scorp's head.

Immediately the brunette dream came alive and said, "Let go of my ears, buster. We've had enough of this byplay." She came erect in one graceful motion and snapped: "Up off your knees and close your mouth. You look like a badly designed ash-stand."

She had a little gun of some kind in her mitt so I closed my mouth and got up. Scorp muttered, "Plutonian buff tallow selling at three hundred units a ton in—"

I said, "This dame was stalling. That's what. Waiting for her son here—"

IT WAS the wrong thing to say. But worth it. She snarled and brought the gun around, but Scorp drew her attention with a plaintive, "Say—what the hell is all this?"

Downy Ears said, "Just a pair of nice people trying to pick up a quick unit." He looked at the dead Singh and the busted mechanism against the wall. "Did he have an argument with the robot?"

"No, with me," the gun girl said. "I asked him to take us in or bow out. He slugged me. No man slugs me, so he bowed out."

"Did you get what he knew?"

"He didn't know anything we haven't heard before. He said he got the vibrogram from Cordat Singh two weeks ago. The bum told him he was bringing back a treasure beyond all price; to get set for negotiations, whatever that meant."

Scorp said, "If you two don't mind—"

Downy Ears looked at Scorp and me in a rather preoccupied manner.

"Get over by that wall and shut up." We looked at the pellet in his paw and the little gun in the girl's slim mitt and got over by the wall. The crooked little tramp of an aide looked at the gorgeous tramp of a girl and said, "Then I'm convinced our original pitch was right."

You could see she wasn't completely sold on it, whatever it was. He scowled and said, "The legend about that three-planet world is true. It was too fantastic to have been invented. I'm convinced the temples bulging with loot *do* exist and that the loot isn't too hard to get hold of."

She *wanted* to be convinced. "You think then that Cordat was on the way back with a load of it?"

"I do. By 'get ready to negotiate' he meant get ready to turn the stuff into unicredits. Then some pirate ship gave him a going-over after he sent the vibrogram and cleaned him out."

"So we—"

"It's simple. What Cordat could do, we can do. And we'll be a little more careful about pirates on the way back."

She decided to buy it. "Have you got clearance all arranged?"

He nodded and turned his attention to Scorp and me. He said, "Face the wall."

It seemed a reasonable request. Besides, they had the artillery. We turned and faced the wall. I couldn't see them, but I knew they were walking toward us. I was just getting ready to give Scorp the high sign to start the festivities, when they hit us. I think they used a couple of chairs.

Anyhow, there weren't any festivities.

I CAME to first; came to with a big headache. I was lying on the floor beside Scorp. Scorp was still sleeping—he always was a late riser—so I oc-

cupied the time by figuring out where we were. It wasn't too hard to do. Any man with a headache could have done it. We were in the galley of the nice new space ship we'd gotten on salvage and were going to make a million units with.

Scorp stirred and muttered. "Yak butter to Venus for opals at five to—"

I nudged him with my shoulder. "Come alive. We're all clabbered up."

I didn't get a chance to elaborate, because at that moment Downy Ears came in through the galley door with a gun in his hand. He was all business, that boy. He said, "Get up."

I figured it was time to stop being a yes man, so I said, "Go to hell."

He kicked me alongside the skull and said, "Get up." I decided to be a yes man until my head quit aching. I got up and he pushed me out into the companionway and forward to the pilot house.

Our hostess, more completely dressed now, was lounging gracefully in a control chair. She said, "Hello, Buster."

What I replied was under my breath, because I doubt if she'd have liked it. She said, "Mike here has a little job for you."

So pretty boy had a tough name like Mike. That's the way it is, sometimes. He said, "I want you to plot a course from the monoflight plate."

"I don't feel like plotting a course today." I knew the angle now, of course. They wanted to go where Cordat Singh had been before he'd died. Evidently he left no space directional, so the only way to do it was to run a new one from the mono. It was a four-hour job and not every pilot could handle it. I decided to stall. "I never laid a course from a mono in my life."

That seemed to sadden the girl. "Too bad. Then we have to get a new

pilot. Your value to us ceases."

Mike said, "Where do you want it? Front or back?"

You have to make a decision in such spots. I decided they weren't fooling. "What's in it for me if I do it?"

"You live longer."

Maybe it wasn't much but it was something, and this seemed to be a seller's market. "Where's the plate?"

"There in the work slot. Where else would it be?" They were very snappish, indicating foreshortened nerves. Very dangerous in people carrying guns. I went to the work table and sat down. "How about a cup of coffee? My head aches."

Mike said, "Nicky, go have the other gonn take over his duties."

That meant Scorp was going to be cook. He'd like that. The gal known as Nicky left the pilot room and Mike asked, "How long will it take?"

"Four hours."

"I'll give you three. If you want to get clobbered, take three and a half."

A nice boy. A nice tough boy. I grunted and lifted the monoflight plate out of the work slot and laid it on the table. There was a lot of tedious work involved in a job like this. And complicated. Ever since I'd learned to do it, I'd been patting myself on the back for having the brains.

I GOT OUT the plotting instruments and checked the plate. The course angles on it served only as a basic guide. The work I was doing would enable us to backtrack over the last course flown by the ship, but we wouldn't necessarily know our destination. It was merely the point at the end of the projected course and could be four miles under the surface of some planet for all we knew. We could only take it for granted that it wasn't.

A ticklish job, as I said, because

time had passed. The galaxy was in a new position relative to space and the components of the galaxy were in new positions relative to each other.

I took an arbitrary time off the clock—four hours and ten minutes hence—which would be blast-off time. It had to be blast-off time or the whole job would have to be done again. Now the time on the plate had to be subtracted and the remainder reduced to one-hundredth seconds. I got out a fresh drafting plate and went to work.

Two hours later the lines were plotted and the ticklish work began; checking microscopically and redrafting the variations. A man can go blind doing that. It took another hour before the two lines faded into one under the double lens.

Mike had been easing in and out of the pilot room but hadn't bothered me. As I slammed the course plate into its work slot, he asked, "How soon can you get this tub off the ground?"

I pointed to the blast-off time and at that moment the primers hit the tubes and the guts of the ship growled. "Jets heating," I said.

It wouldn't be long now. If anything was going to happen, it had to happen quick. Otherwise Scorp and I were going to take a long ride. And probably our last one. I knew Mike had been busy arranging clearance. He said, "In case you've got any ideas of calling control, forget them. I've got the relay open in the radio room and it stays that way."

I'd found that out earlier when I tried contacting control. "How clever," I said. "Do you want to lift the ship or shall I?"

"You'll lift it, but on intercom. I'll be in the radio room monitoring. And I'll handle outside contact."

Things looked bad. In fact they

were bad; so bad that an hour later we were outside gravity drag-kiting for some spot in the cosmos not quite clear, along a course laid out to one-tenth the thickness of a very small gnat's eyebrow. I wondered where it was.

While I was wondering Nicky came into the pilot room and said, "Okay, buster. I can run the manual. Your quarters from now on are the galley along with Stupid. I had him haul a couple of cots in there. I'll come get you every twelve hours and we'll review the pilot room together. Get going."

I WAS BEGINNING to admire her.

I always admire people with orderly minds who look ahead and lay out programs. All neat and orderly. Respecting the little gun she carried, I went back to the galley with said little gun following right behind my left kidney and heard the door snap locked with me on the inside.

Scorp sat on a table with his legs hanging down and his chin in his hands. He was very gloomy, something I could well understand. I was very gloomy too. He said, "With every zoo on Earth yelling for six-foot-ed—"

I cut him off. "Don't start that again. You better start thinking about your own hide. I understand human skin sells on Fanta IV at eighteen *zorngs* a square *lictro*. If we don't look out somebody will be peddling burs."

Scorp shrugged. "What the hell can we do? They didn't leave any cleavers in here."

The door came open and Mike shoved his head in. "Get going, you. I expect dinner in three-quarters of an hour. And it better be good." The door slammed.

Scorp grunted and walked over to

the pantry. "I wonder how we're stocked?"

The pantry was cram full. Scorp moved on and opened the freezer. He started to close the door, did a double take, and went inside. He came out a minute later carrying something that looked like a frozen turkey. But it wasn't. Scorp could see it better than I could and he said, "Who the hell would eat monkey meat?"

I went for a closer look and that's what it was—a frozen monkey; hard as a bullet and all curled up with its hands over its eyes like the middle monkey—the 'see no evil' one in the sets people use to decorate mantels. He flung it away in disgust. It hit the floor and bounced across the room and came to rest in a corner. Scorp went to the pantry and came back to the table with an armful of glassines and began opening them. "You know how to make goulash?" he asked.

I stretched out on the cot. "Nope. You're the chef. My job around here is to do the thinking."

"Well, get going then," he growled. "You're way behind." He went about getting a meal together while I lay staring at the ceiling trying to figure out the score. I couldn't make anything add up, though. Not then or after dinner. Not even before the sleep-period rolled around and it was time for some shut-eye. It began to look as though thinking wasn't my racket either.

Scorp laid down on his cot and I asked, "Where the hell you think we're going?"

"I don't know, but I know where I'm going."

He went there. In forty seconds, he was snoring like a rock saw.

LATER, when I woke up, it was to realize Scorp had gotten playful. I lay there with my eyes closed and

Scorp tickling my left ear and wondered about it. It was something new. Scorp wasn't the kind to be playful, least of all right after a sleep period. I wondered what to do about it and finally decided to plain haul off and let him have one.

Fortunately for my fist, I decided to open my eyes first. If I hadn't I'd have busted the fist against the wall because it wasn't Scorp at all.

It was a monkey. The little joker sat there looking at me with his tail curled over his head and it was the tail that played with my ear.

Where, I wondered, had a monkey come from? The answer followed right behind. This was the same lump of rock Scorp had found in the freezer and had thrown into a corner. It had been quick-frozen. That made me realize what an up-to-date boat we'd salvaged, because very few of them were equipped with one of the new instantaneous freezers used to bring dangerous animals from the far planets and asteroids for Earth and Martian zoos.

The monkey made a remark in a language I didn't get and hopped over on Scorp's head. Immediately Scorp's sleeping period was over. He came up like a shot while the monk jumped on the table and squatted there going through a peculiar routine. It put its little paws over its ears and chirped; then over its eyes and chirped again, but differently; finally over its mouth and just sat there nailing us with its bright eyes.

Scorp ground the sleep out of his eyes and looked again. He said, "Cripes! A monkey. That makes three of us."

"You better apologize for using him for a football," I said, "or you'll keep finding his tail in your soup. When a monkey doesn't like you—"

Scorp scratched his head. "You

think it's the same one?"

"What else? The other one's gone."

Scorp thought along the same lines I had. "An instant freeze in the ship. Cripes! We can stock zoos! We can make a million!"

I got up from the cot. "You keep forgetting the tub is ours in name only—that a high school kid and a chorus cutie took it away from us. I'd think you'd be kind of ashamed of yourself."

"I'd hate to meet the rest of the chorus or walk within a hundred yards of that high school," he grunted.

WE HEARD the lock snap and were on our feet when the door opened. The alertness didn't pay off though because Nicky had the gun waist high and poked it in first. "A little action here," she snapped, "or we'll fire the cook. We do it with a gun."

Then she saw the monk and stopped. "Which one of you gave birth?" she inquired acidly. I was halfway to the door before my good sense caught up with me. Fortunately it caught up with me in time. That babe would have shot me down and kicked me in the teeth for bleeding.

"Come on, you," she said. "We'll check the pilot room while Stupid gets breakfast." She stepped aside and I walked out into the companionway. "See that that monkey doesn't turn up in the stew," she told Scorp, and then slammed and locked the door.

The boat was riding like a dream, I discovered. That old character, Rip Van Winkle, could have taken his nap aboard and waked up five inches from any doorstep in the universe. The boat was that easy to handle. I checked through the microscope and found the channel peeling off as clean as bark from a tree. We weren't whipping ten feet on any side of our orbit.

"Not good," I said. "The channel has varied several times. I'll have to recheck the route."

The idea was that if I could get her to come and look, I might be able to do something with that gun she kept pointing. But I think she must have read my mind. Her words were too pat for anything else. She said, "When I look over your shoulder, buster, you'll be dead and I won't have to worry."

Nails were soft beside Nicky.

Back in the galley, I found the monkey helping Scorp with breakfast. Everything Scorp put down, the monk picked up and put some place else until Scorp was fit to be tied. It was mostly show with him though, because he grinned and said, "He's kind of a cute little character. Helps pass the time away."

AND THERE was plenty of time to be passed. Of course we kept making plans to nail the brass-riveted duo on a rebound and take back our ship and the interest in those plans kept us from being bored. But as plan after plan fell through, we began to get discouraged. You just can't take an efficient team that doesn't leave any leeway to be taken.

We kept on trying, though, and came finally, according to our pre-route, within a week of our destination.

The monkey and Scorp got along fine. The closest Scorp came to getting killed on the whole trip was when Mike lifted the monkey on his boot once and sent it sailing across the table. While the monk righted itself and sat cursing Mike, I thought Scorp was going to dive right into a flour-pellet. I got in his way in time, though, and a quick death was averted.

The little joker liked me too and we were quite a homey three there in the galley. But he spent most of his

time with Scorp—wrapped around his neck, or sitting on his shoulder pulling the hear-no-see-no-speak-no-evil routine.

I was kind of surprised at the way Scorp got attached to the monk and some comment, handed out casually, brought a response on the subject. Kind of a round-about one. Scorp said, "You know, those two pirates figure on finding a planet crawling with loot—a place where they'll set down and go to work with shovels."

"Uh-huh. They figure Cordat hauled a load away already. We're back for the second one."

"That yarn about the treasure planet—I've heard it myself. It's supposed to be the place that Chinese space ship set down over four hundred years ago. The legend goes that they got prosperous and waxed very fat in the way of such knickknacks as platinum statues with diamond eyes, before they forgot to breed often enough and ended up with nobody to bury the last resident."

"You must have been listening at keyholes," I said. "I don't think the dynamite duo have it down that pat."

"No, but I think Cordat Singh did before he drew a slug in the brain," Scorp said.

"Then you think it's the straight layout? That they just squat and fill the ship?"

"Uh-uh. I got a hunch those pirates are in for a surprise. I'll bet my share of this tub they find a plenty different picture."

"Your share of this tub isn't much right now," I hastened to remind him. "But we won't dwell on that. I kind of gather you don't think it was pirates that threw all the furniture into the companionway."

SCORP stroked the monkey's ears. The monkey put its arms around

Scorp's neck and kissed him. "It doesn't add, for me. I don't say you couldn't bump into a shipful of bandits who would take a cargo of treasure and then kill everybody, but usually they don't work that way."

"I was thinking that myself."

"They're too smart to kill for no reason. It leads to trouble."

"I thought so too."

"Quit second-guessing me. The job had the earmarks of some jokers that came aboard and didn't find what they wanted. Religious fanatics might kill that way."

"But Cordat Singh microgrammed ahead that he was loaded."

"Maybe he was playing some game of his own. Or maybe he did have the haul and got it hidden safely. It wouldn't have to be too big. I've seen chunks of midjan from Pluto you could put in your hip pocket, and there wouldn't be enough money in the universe to buy them."

I sat there thinking for a while and Scorp began playing with the monk. He said, "Come on, Loopy. Let's do the Over My Dead Body act."

The monk grinned from ear to ear and chattered a little. Then it glued itself belly-tight to the front of Scorp's shirt and wrapped its arms and tail around his neck. Then the little joker went partially crazy. Looking over its shoulder, it laid a baleful eye on me and began to swear a purple streak.

I was taken aback for fair. You'd have thought I was just getting ready to kick Scorp's teeth out and the monk was not going to allow it. The monk called me names that would have curled another monk's hair. I gaped in wonder until Scorp laughed and peeled the simian off like a plaster and gave him a mock-banana from the table. Scorp grinned. "Just

a trick I've been teaching him. He's a smart little devil. Picks up fast. I've taught him some other ones I'll show you some time."

I wasn't particularly interested in watching a monk do tricks. I was hotter on thinking up some tricks of my own to use on a couple of parties I could name. But I guess I wasn't as smart as the monkey. I couldn't think of any tricks. Any that hadn't failed already.

The sleep period had rolled around and I watched Scorp and Loopy get ready for bed. Scorp had made the monk a nightgown out of three sugar sacks and the monk put it on and got into its biscuit-box bed. I thought, murder. A guy who was going to make a million in the space trade ending up making nightgowns for monkeys. Great stuff.

Then I went to sleep myself.

IT WAS three days later by the chronometer that Scorp and I got our chance. It came accidentally—not one of those manipulated deals that always fell through.

The food hadn't been so good, according to Nicky, and she was in the galley raising hell. Scorp was getting ready to make a stew and the gravy was in a bowl on the table. The gorgeous Nicky said, "Let me taste that stuff. What do you put in it—glue?"

The gun was hanging at her side; the first time she'd lowered it that I could remember. Scorp, all innocence, said, "You want to taste it, baby?"

"Don't call me baby, you stupid ass."

"Sorry—here." And Scorp pushed the bowl of gravy into her face. We'd been together so long, there was kind of a contact between us—Scorp and me—so I was there when the right time came. I snatched the gun out of her hand while she was clawing at

the gravy, and wrapped an arm around her pretty neck.

But maybe there was something between Mike and Nicky, too, because he barged in right at that second ready to flip a flouropellet at a likely target.

I started to raise the gun but Nicky clamped thirty-two sharp teeth into my wrist and I had to shake loose. Scorp took his life in his hands and heaved the gravy bowl at Mike. Mike ducked, a merciless grin on his face, and I could see somebody's number was up.

As the gravy bowl crashed against the wall and Mike straightened to shoot the pellet, I got Nicky's teeth out of my wrist and lifted her up and heaved her across the galley at Mike.

If he'd been a gentleman he'd have caught her. It isn't nice to let a lady land by herself. But Mike ducked out of the way and Nicky hit the wall with a thud that started Loopy chattering from his spot on the ice box.

I clawed for the gun trying to get in ahead of Nicky with the business. Scorp looked desperately around for something to throw, but he was fresh out of gravy bowls. Nicky moaned as she struggled to get her gorgeous body up off the floor.

Then everybody froze.

It must have been an interesting tableau there in the galley. Nicky with the pellet almost ready to leave his fingers. Scorp hunting for a hole. Me with the gun halfway up and Nicky all uncovered and undignified. Frozen.

The radar signal did it. It whined out over the intercom to which it was always hooked; a high whining signal. The boat we rode in had the latest thing in deflectors. When the ship and an asteroid came close together, one of them turned away; whichever was the smallest. The signal siren meant that the obstruction

was the only thing that wouldn't swing out; another ship.

THE TRUCE was instant and mutual. We crowded for the door in a pack. Mike made it through first and I followed with Nicky limping along behind me. I remembered wishing, as I pushed past her, that there had been a gentleman aboard to give her a little help. Too bad there wasn't.

Scorp might have helped her but he had Loopy to think about and Loopy was more important to him.

We crowded into the pilot room and snapped on the fore and aft video plates. They both showed the same thing.

Ships.

A ship ahead and a ship behind; big black war cruisers, as vicious-looking as any I'd ever seen. And they meant business. Each of them was sending out three magnasleds and each magnasled carried a half dozen black-garbed warriors.

While I stared at the place wondering where such as these could have come from, the sleds moved in on us. In no time at all, the six craft were glued to our sides and the attack force was running over our hull.

"Blast off!" Mike yelled. "You goddam fool! Hit your power and let's get out of here."

"We've got no power," I told him. "They've got our atom pile counteracted from two sides. Turn on the power and we'd just be driving against ourselves."

"How the hell do you know that?"

"From the sound of the slag through the baffle plates. Can't you hear the stuff whine as it fuses? It's happened to me before."

Nicky was against the wall, bloody where she'd ripped her skin in the fall. "They're not in yet," she snarled.

But they were. This was an outfit

that knew its business. They must have used a hot-bore on our port, because it was opening. We could hear the air valve hissing from the control room.

"We got to do something," Mike barked. "They're cracking us. They'll let our air out. We're cooked."

"We're inside an atmosphere," Scorp said. "There's the planet down in the corner of the plate. Anyhow, you could see none of the troops wore helmets." Scorp stood oddly alert, stroking Loopy's head, his face tense.

HE WAS RIGHT. We'd been in space so long we'd overlooked the absence of helmets on the invaders.

Now they were coming down the companionway, and I'll have to give Mike and Nicky credit. They weren't cowards. Mike's pellet got the first warrior who stuck a head in the door. The warrior kept right on coming—down toward the floor in a long pitch. When his face touched metal, he was dead.

Nicky got the second one with her little gun she'd grabbed. The slug went through the black armor on the soldier, through his chest and out the back. It didn't leave much inside.

Scorp had reached out and grabbed my arm. "Get behind me," he whispered—between me and the wall." He was so close to the wall there wasn't much room. When I stood flat-footed he snarled the order again: "Get behind me, you damned fool, if you want to go on living."

I got behind him just as the next soldier in burned a six-inch hole through Nicky's lovely body. Mike weakened at the last minute. As Nicky went down he screamed and fell to his knees. The soldier blasted off his head with a spurt of green flame from the odd gun he carried. Blasted it off

just as I heard Scorp whisper to the monkey, "Come on, Loopy. Into the Over My Dead Body act." The monk responded.

Glueing itself to Scorp's shirt front, it turned its head and began giving the soldier hell in monk language.

And the silly soldier listened.

He did more than that—or rather *they* did. There were a half dozen of them in the room now and they all took one look at Loopy and dropped to their knees. Loopy kept on jabbering, scolding them, and so they went further. They bent over until their foreheads touched the floor.

Scorp whispered. "Okay, Loopy. Good act." The monk grinned and nestled against Scorp's neck. Scorp turned to me and grinned also. "I was right, wasn't I?"

"Right about what?" I grunted. None of it made any sense to me.

"That's the trouble with you. Never ready to give a smart man credit. You got any green fire holes in you?"

"No."

"Then I must have been right."

"I wouldn't rob you of any glory," I said, wiping my forehead. "You were right."

CORPELLA, we found, was a neat little three-planet family around a small blue sun out beyond the Great Bear. That was where our blind routing had taken us—to *Corpella*.

There was more to it than that, of course. And lucky for our hides, Scorp had put his money on the right legend. These people had come from Earth and found the new family some four or five hundred years before. They brought a rich oriental culture with them which had been diverted somewhat during the later centuries—diverted by some very clever medicine men, or whatever you'd call

them. Characters who brought monkey worship to these people and made a very good thing for themselves.

And there was even more.

Scorp and I began learning about it when the warriors escorted us off the ship like a couple of visiting dignitaries. Not haying the ball, I kept my mouth shut and went along. They didn't pay too much attention to me. I figured I was kind of tolerated. All their attention was on the monkey that kept itself glued around Scorp's neck.

And it finally dawned on me that the monk was our passport to *Corpella* and a lot more years of life. It was driven home when Scorp whispered, "The nightgown and all the chin tickling is paying off now, pally. As long as I wear this monk for a necktie we keep from being made dead. Stick close."

I intended to.

They moored our ship to hard gravity and took us down to one of the planets and into a city in an open air-car. We rolled along the avenues close to the pavement, and on all sides the John and Jane Publics went down on their knees as we went by.

"A pretty damn important monkey," I muttered. "Do all the monks on these planets rate this high?"

"I'm not sure," Scorp said, "but I think we'll find I'm right in thinking there aren't more than half a dozen in this whole three-planet world. Kind of a royal family, so to speak. And if I'm not wrong, we'll find a damn solid and crooked bunch of phoney priests behind the whole thing. Those priests are our ace in the hole."

Scorp's knowledge, we found, was accurate. We found the first priest, a joker in a long purple robe, waiting for us in front of a building that looked like some kind of a temple.

We got out of the car and the first rub came when this priest character tried to get his mitts on Loopy.

The monk would have none of it and the character in the purple robe didn't like it. But there was nothing he could do, evidently. So Loopy went with us into the luxurious apartment they had for important people.

A short time later, four more of the robed clan came visiting, each with a monk on his shoulder. And there was great consternation when Loopy began swearing at them. He wanted nothing to do with his relatives it seemed.

The priests went away after that and Scorp said, "We're in. Loopy is the top monk. I was banking on Cordat Singh kidnapping the top monkey for ransom. I didn't think he'd settle for one of the younger ones."

I sat down on a bed that was like a cloud. "What do we do now?" I asked.

Scorp grinned. "You want more than this?"

"I want to get the hell away from this screwy world. I don't like people that kowtow to monkeys. It's not dignified."

Scorp kept on grinning. "I'll see what I can do."

SCORP DID something a week later. One night he woke me up and whispered, "Come on. We're taking it on the lam."

I got dressed and outside there were a group of very shadowy figures waiting for us. I got my guard up but it wasn't necessary. They were pals. They had an air car for us and we rode to a little space cruiser and took off. It was pretty dark and I couldn't get much of a look at the characters, but I had an idea who they were.

Then I noticed something and asked

Scorp, "Where's Loopy."

"Never mind about Loopy," he whispered back. "Just keep your trap shut and take it easy."

I did and pretty soon we were back in our ship with the port locked and the jets hot. "Get it going," Scorp said.

A new plotting wasn't necessary. I had the monoflight plate Cordat Singh had used to get away from this world. I lined it up and gunned the jets.

Then I went to find Scorp and located him in the galley counting junks of gold. He grinned. "Big market for this stuff. Happy days ahead, chum."

"How the hell—"

"I made a trip before I woke you up."

"I still don't get it."

"The priests, you chump. They wanted to get rid of us bad. I made a

deal."

"All this for Loopy?"

"That's what they think."

And Scorp went to the deep freeze and took out a lump that looked at first like a frozen turkey. A quick look showed it wasn't. It was a monkey.

"Loopy," Scorp said. "They don't know he's gone yet."

I said, "You play it dangerous, boy."

"You didn't think I'd leave my pet monk with those heathens, did you? Besides, I don't think there'll be any trouble. The priests can ring in one of the others this time."

"But what if there is trouble?"

"Then just gun those jets, boy. Gun those jets."

So I went out and gunned the jets some more.

THE END



THE BIG BLOWUP

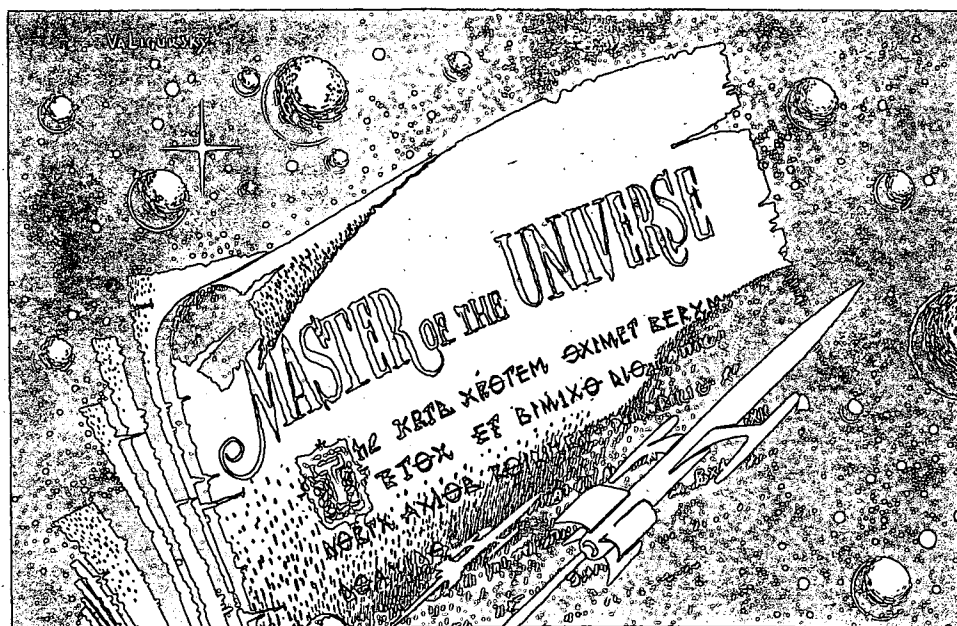
THERE ARE few things about the stars that can be said with absolute certainty; of these, one of the most certain is the knowledge that unquestionably our own star, old Sol, is powered by the conversion of hydrogen into helium. This reaction, thermonuclear as it is called, is the basis of the proposed "H-bomb." For twenty years we've known that this has been going on in the Sun and in most other stars as well. Now we're on the verge of reproducing it on Earth. Whether the results will be as gratifying is questionable—but we've got to try!

No man can get the faintest idea of how tremendous is the energy generation in the Sun. We can measure it, study it and reproduce it in a fragmentary way, but we can't possibly imagine its inconceivable vastness. And it all stems from a simple, humble process summarized in a few trivial symbols. At the root of the whole method is the famous Einstein equation stating that mass is converted into energy and giving the exchange rate—very inflated! All that happens basically is that

when you compress four hydrogen atoms into one helium atom, the protons and electrons and neutrons fit nicely together except that, like an amateur automobile mechanic, you have a little bit of mass left over. But that mass doesn't remain around as such—it is immediately converted by some not-understood process into radiant energy. And that's the power of the Sun—or hydrogen bomb! It's as simple as that. Actually there are a few more complex details, such as the catalytic effect of carbon and a series of reactions involving intermediate stages with beryllium, but in essence it's "hydrogen-to-helium-with-mass-left over".

It doesn't take a super-powered mind to see the usefulness of abstract old astronomy, that "impractical" science. It was the first science studied by Man: let us hope that it won't be the last also! Bringing a chunk of the Sun down to Earth is like Prometheus playing with fire, but this time with a fire that can sweep a planet clean!

Omar Snyder



The second installment of what promises
to be one of the most controversial and
unusual documents we've ever published!

CHAPTER III

DANTE—GENIUS OR JOKER?

FEW HUMAN events of historical importance have been filled with so many question marks as the tragic "affair Dante". In its essence, it proves the manner in which unleashed emotions can cloud fact. In the matter of Robert Dante, there are many facts which will never be known. Of this, however, we are sure: Dante unwittingly triggered a major crisis in world history.

Surprisingly little is known about the man personally. Prior to September 4, 1997, references to his life and works are indeed scant. He was not more than twenty-four years of age

when he met his death on that black late-summer afternoon in Detroit, Michigan. Prior to the time, he had attended three national universities and had been dismissed in each case before completing any of the courses. His chief apologist, Randolph Roosevelt, a reporter employed by the *Chicago Times-Tribune*, painted a wordy picture of Dante wearing the garments of a martyr. (1—See next page)

In the study of Roosevelt's testimony, it must be remembered that his employing newspaper had a policy of striving to ride the prevailing wind.

On September 8, 1997, the vast upheaval which was to follow Dante's death could not be perceived—at least not by the editors of the *Chicago Times-Tribune*. It is enlightening, therefore, to find in a September 25, 1997, *Chicago Times-Tribune* editorial, a vitriolic reference to “that scoundrel Dante”. On September 25, the wind was blowing hard.

There is on record an unpublished interview relative to Dante, in the diary of Eugene Bibber, a prolific fiction writer of the time. Bibber was a roving representative of the Dallas Texas Gazette, a powerful public organ of that day. Why he never submitted to his paper the material found in his diary will never be known. (2)

There is no doubt, however, that on September 2, 1997, Robert Dante—genius or joker—arrived in the city of Detroit and made a public announcement to the effect that he had devised a means of drawing fission-energy from common, untreated substances.

On the afternoon of September 4, a demonstration was arranged at a Detroit railroad station. What transpired is excellently described by an unknown writer in the *Detroit Free-Press* of that day. (3)

In his news story, the unknown reporter evinced wonder at the outbreak of such violence in Detroit in the year 1997. This is understandable, because all attention was concentrated upon the unfortunate Robert Dante as the object of public wrath. Dante was, in

(1) In the Sept. 8, 1997, issue of the *Chicago Times-Tribune*, a news story appeared bearing Roosevelt's by-line. Roosevelt stated in part: “The world has lost a genius. The brutal murder of Robert Dante will be forever a black mark on Humanity's record. Dante was at least several hundred years ahead of his time. He was a man born with a store of knowledge far greater than that of the teachers who sought to instruct him. He left school after school because he could find in them nothing to affirm and much to deny. The basic principals of nuclear fission were his as a child. When he was killed last week on Detroit's blackest day, an undisputed treasury of scientific knowledge died with him. May God forgive his murderers!”

(2) From the diary of Eugene Bibber, now in possession of the Berkley, California, Literary Museum. In part: “I was in Boston when the Dante story broke in Detroit. One of the early flashes gave out that Dante had been booted from Boston Polytech. I got over there, remembering an introduction once to Ignatius Lycoming—‘Old Iggy’ they called him—the nuclear fission prexy who was kind of a fixture at Boston Poly. I got in to see him; got an interview on Dante:

Q: Did you know Robert Dante, Professor?

A: Know him? Knew him well. Sent him out of the place. He mailed me a fictitious letter awarding me an honorary fellowship in the Oxford Knights Scientific. A cruel joke. A very cruel joke.

Q: Was that the reason for his dismissal?

A: Of course not. Rather, his dismissal was the cause of the joke. Robert Dante knew nothing whatever of even basic nuclear theory. He obviously passed the entrance tests by some sort of fraud. His demeanor was infantile. Always laughing. Anything for the joke. Most disturbing in any educational forum.

Q: What about this ‘ato-generator’ spoken of in the news releases from Detroit?

A: The rankest kind of fraud. Probably a cigar box painted black.

Q: Have you any comment on the Detroit tragedy?

A: Sickening. I deplore such bestial outbursts. They show we haven't made much progress from the days of Attila the Hun.”

(3) From the *Detroit Free-Press*, September 4, 1997: “...The indication of tragedy to come might have been found in the huge and entirely unexpected public turnout. By noon, almost ten thousand people were milling in and around the depot. This reporter can quote a uniformed patrolman—one of the many called in on emergency to handle the crowd—who spoke from long experience: ‘I don't like this at all. They're too quiet. This isn't no holiday crowd. Nobody laughing—nobody talking much. I don't like it.’

“Prophetic words indeed. If the patrolman's superiors had been as perceptive, the

reality, merely a trigger. And it is historic irony that one of the most serious upheavals in history was set off by a man who was in all probability nothing more than a joker, a whimsical opportunist.

The Detroit affair was the bursting forth of a long pent-up and long-building fear in the public mind. For decades, scientific advancement was lessening the work burden borne for ages by human shoulders. There had come—in 1978—the final agricultural streamlining whereby, through scientific invention, the fruit picker, the cotton picker, and eighty per cent of farm labor was eliminated. In 1984, there was put into operation the great Copter freight services that swept tens

of thousands of cross-country trucks off the roads. In 1990, the need of factory help had been reduced over seventy per cent, and one fifty-acre shoe factory established some kind of a record by boasting a payroll of eleven human workers.

These are only isolated examples of labor-saving efficiency, all of which were met with bitter resistance spearheaded by the labor unions, and championed by self-confessed “far-sighted” thinkers who envisioned a Utopia where no man ever labored. (4)

Regardless of what Bradford’s anonymous industrialist liked to think, each new industrial change after 1975 required less and less manpower, and

demonstration would no doubt have been called off...

“Robert Dante was in his glory. This reporter had an excellent vantage point from the steel girders just over the cold locomotive. The locomotive was of the steam-driven type, now obsolete, and had been pulled to the spot by a shining turbine-drive. The turbine-drive had been taken away and the steam locomotive stood there, cold and without fire or steam, looking as though it would never move again.

“Dante appeared, smiling, from the crowd, carrying the small black box he had termed an ‘ato-generator’, and concerning which he had stated in press releases: ‘The curse of hard labor will at last be lifted from the back of mankind. Power from common materials, and at negligible expense, is now a reality’.

“Dante climbed into the cab of the locomotive. He continued to smile and waved a hand at the waiting crowd. But no smiles were returned. No hands waved back. And the silence in that vast station must have given this reporter’s patrolman friend added cause for worry.

“For perhaps three minutes Dante could not be seen as he went about some mysterious work inside the cab. The crowd waited with complete and amazing patience. Then Dante reappeared in the window, waved again, and posed himself in the casual, easy manner of a railway engineer. There was a pause of even deeper silence. Ten seconds—twenty—thirty.

“The engine moved. There was no spurting steam; no roar of smoke belching from the stack. Only the quiet, definite, forward movement of a cold, steamless steam engine.

“Now, from somewhere in the crowd, there came the scream of a woman; a single high-pitched voice repeated one word over and over: ‘No! No! No! No!’ It was chilling in the silence and, whether intended as such or not, it was a signal.

“A deep, savage roar welled up from the crowd. Then that packed human mass moved forward and no adequate description of what followed can be given. Perched with several other reporters on the high girder, your reporter felt the girder tremble as men, women and children were hurled against brick walls. We knew people were dying, that this was humanity gone mad. But even then we asked ourselves: why? Why this sudden outflooding of madness and savagery?

“We saw Dante dragged from the cab of the locomotive screaming in terror. His screams could not be heard, but his twisted, terror-contorted features told the story. And he was actually torn to pieces right there before our eyes.

“But this was only the beginning; the start of a riot and public disorder of such proportions as to hold the police helpless....”

(4) Bradford (*World Crisis And Transition*, Vol. IV, Temple Photo Press), quoting an industrialist of the time: “I like to think that the video repairman of today, content, well-paid, was released from behind the wheel of a truck by science in the form of the Copter freight craft.”

with military mobilization no longer keeping a great core of manpower off the industrial scene, a greater and greater burden was laid upon the government dole system.

The labor unions became less and less potent as unemployment depleted their once overflowing treasuries. They were struck a grave blow, too, by the Kenyon decision in the United States Supreme Court in 1978. (5)

So the fury unleashed in Detroit by the smiling Dante had been years in the building. In Dante's act of apparently moving a locomotive with energy drawn from common substances, the public saw the death warrant of all remaining mass employment.

The reactionary impetus begun that afternoon in Detroit gained momentum as the days and weeks went by. It became a power to be reckoned with, and then taken as the will of the people. Professional opportunists jumped on the band wagon, and the movement took on the semblance of a religion with such slogans as: "Work is Man's Sacred Right—Don't Tamper With it." And: "Man Achieves Human Dignity From the Sweat of His Brow".

The law makers of the United States, which still functioned as a mass-voting democracy, were forced to take cognizance of the new retrogression. Laws were passed. Any politician who dared speak for industrial progress could as well have come out in open favor of sin.

The Copter freight service was outlawed. Manufacturers were forced by law to abandon mechanical assembly-line techniques and dispense by way of payrolls at least sixty per cent of their gross revenues.

And one hundred years went by.

These years were lost ones in certain respects. But in another sense, they were years of adjustment. Also a time of proof; proof that progress can be delayed but not stopped. The time was spent in perfecting the World Federation. Within fifty years of Dante's death, the world was irrevocably knitted into one indivisible community.

Science was allowed to function in selected channels. Food synthetics were developed, but commercial or industrial use of the end-products could not even be considered. Investigations were carried on under subterfuges which were sometimes extremely ludicrous.

Again the great corporations came to the fore as the units in control of such activities, because all government grants to individual scientists and inventors had been outlawed.

A peculiar situation arose in which the American Telephone and Telegraph Company sponsored a research project into synthetic foods. As its federal licenses and charters forbade this company to function commercially in the food field, the research was accepted by the public as a sort of "hobby", and, as such, was countenanced.

The Ford Transportation Company instituted seemingly disinterested research into ultrasonic and subsonic communication practicalities, while the General Electric Corporation spent millions in the newly discovered field of quick-growth as applying to edible vegetables and meat animals.

Time passed. The Dante incident was forgotten. And again progress was destined to rear its "ugly" head.

(5). The Tax League vs Kenyon. A famous decision by the United States Supreme Court which ruled on a five-to-four decision that a worker on strike or out of employment could not use subsistence funds furnished him by the government for the purpose of paying union dues.

CHAPTER IV

INVITATION INTO EDEN

IN THE year 2075, a corporation called Associated Developments was quietly organized; so quietly, in fact, that a comparatively small number of people even knew of its existence. However, there appeared to be unlimited funds behind this organization. A working agreement must also have existed between its executives and the potent leaders of the various World Federation states.

This, because grants of land in various sections of the globe were quietly given to Associated Developments for "functional tests in new modes of living". These areas became, in reality, miniature worlds where, strangely enough, the fruits of various researches—AT&T's food synthetics, Ford's communication advancements, General Motor's power derivatives—magically found their way. (6)

As one would suspect, Operation Eden had rocky going at first. Even

though it was put forward with careful and studied deception, it was viewed by the public as another elimination of their sacred right to work. The proposition of a few hundred workers's producing enough power to amply supply the world's needs brought only shudders to the masses. (7)

The selection by AT&T of synthetic foods as a field of research was evidently for reasons of their own, as there were no restrictions nor onuses attached to this field. The problem of feeding the earth's millions from worn-out soil was a grave one.

So this branch of science flourished. It had the backing of the again-strong trade unions and the urban populations. The rural inhabitants of the agricultural states protested volubly, but were overruled as a minority in the wrong.

But the other branches of science, as represented in the "islands", were regarded with fear and suspicion.

But time passed. More and more people succumbed to the temptation

(6) Clifton Torres (*Test Tube Worlds*, Doubleday and Whitehead, 2348): "Selling mankind on progress was not unlike waving a candy cane before a baby. The selling was done by the World Federation in negative fashion. The problem was to prove to the masses that the old methods were obsolete, and that plenty was not a theoretical possibility but an established fact.

"In order to do this, model communities were set up which were independently self-sustaining units in themselves. Within these communities, people lived the new life. They were, to all intents and purposes, comparative Edens. A tiny fraction of the residents of these miniature Utopias provided all the necessities of life for the rest. "In the beginning, the residents were selected carefully, with stress on intelligence, character, and what we might call 'aptitude for leisure', and the standard of acceptance was made markedly difficult.

"And they were not, of course, started as government projects. The people, still considering September 4, 1997, as a day of rights reclaimed, would automatically nurture antagonism. So private industry footed the bill and promoted the projects under the guise of private research. So, oddly enough, the new life was built and financed by the very concerns and companies it would eventually eliminate."

(7) Nicolo Medstein (2000-2100—*One Hundred Years of Peace*, on the Calais University tapes) says: "Obviously someone was wrong in the selling campaign. To say mankind is against leisure and easy living is idiotic on the face of it. The reason for public resistance to progress in the Reactionary Era was because there was no thought or discussion of how the fruits of progress would be passed on to the people.

"The work-earn-purchase-work-again system was hereditary—in such ancient and honorable use, the people could see no other manner in which goods could be come by. Unemployment had always meant a government dole or starvation. There was a disgrace attached to not being able to provide for one's family, and no system could be envisioned whereby provision by work would not be necessary."

offered by the islands of ease and leisure. Twenty-five years and it was not as much of a disgrace to apply for admission as it had been. More time and the islands expanded; spread like a fungus over the world; a slow, almost imperceptible spreading. Gradually, the fear and suspicion became things of the past.

Now, the boundaries of these brave experiments in human betterment became lost, and it was conceded that industry had done its greatest service to humanity.

The fifty years from the year 2050 to 2100 have been the subject of unnumbered books, tapes, audios, treatments and histories. It was one of the most eventful five decades in all the recorded annals of mankind. Bradford, whose voluminous *World Crisis and Transition* covered the period from 1900 to 2050, stated sadly, on his deathbed in 2070: "My regret is in leaving this world in the midst of its greatest and most interesting transition. I shall miss so much—so very much."

The period can be touched upon lightly in this historical attempt. So many attempts at human betterment were being carried forward that only a few of them can be even mentioned.

And those, only in passing.

There was the Eugenics Educational Campaign which terminated finally in the Eugenic Law on the books of the

World Federation; a law which set a limit on world population by the process of limiting birth.

With nature's methods of leveling population—starvation, disease and war—having been practically eliminated, the Eugenics Law was a stern necessity. The law allowed three children to a married union. The birth of the fourth child automatically necessitated high-frequency sterilization of the father and the mother. (8)

Important was the changed concept of labor, both physical and mental. While there was little to be done by human hands and brains relative to the carrying on of mechanical functions, there was still need of a few hundred thousand men and women for duties no machine could perform. But this was no problem. With work scarce, it became a badge of honor, and people competed for the privilege of performing the necessary tasks.

Competitions were held under government auspices when jobs were open. Requirements were, of necessity, extremely rigid. A man had to have an extremely high IQ in order to aspire to even so menial a task as oiling a conveyor belt. Very few could aspire to the job of repairing one.

This period was not free from bloodshed. The Swedish Rebellion was extremely serious. It was put down, and as a result of the experience, the World Policing Agency was revamped

(8) Helen Maydew (*Concepts in Human Conflict*, University of Pittsburgh Audio Services, 2114): "Little hope was held for achievement of the purpose of the Eugenic Law because of the vast loophole left, of necessity, in its structure. No restriction could be placed upon those with religious convictions. So it was expected that the 'religious conviction' clause would bring on a flood of conversions. Also that, from sheer defiance, the families of church members would increase.

"Strangely, this was not the case. The masses were astonishingly solid in their compliance. Voluntary application for sterilization became commonplace. The offspring of a single union numbering more than three became a rarity, and upon violation very few couples claimed the sanctuary of their religion.

"Many reasons for this were put forward. Among them that women welcomed the new freedom from repeated childbirth; that the law gave them a recognized and dignified reason for refusing continued reproduction. Also, it was stated that with the new freedom and leisure brought about with the expansion of the Eden Project across the globe, men and women no longer relished the restriction and responsibility of large families."

and strengthened.

In 2063, the Japanese Dissensions shook the Council to its core and threatened to create an unmendable break in the World Federation structure. The fabric held, however, and Lāyato Mitsubishi, the leader of the dissenting group, committed suicide, much to the relief of his own people. But not until the threat of Quarantine, the most dreaded weapon of the Council, was brought to a vote. Mitsubishi's death prevented an arrival of the majority conclusion.

There were other rough places to be navigated by the infant World Government, and more than once the trouble was of vital seriousness. But each time the blast was weathered; and each time the world structure emerged with a stouter cloak of experience.

One does not wonder, however, at these uprisings. They sprang from

cause and effect. One marvels, rather, at the fact that the world *did* win through these foundering times; that out of this maelstrom of bewilderment, cross-purpose, still-glowing nationalism, and resulting intrigue, the whole magnificent structure did not mire hopelessly under floundering feet. (9)

★ ★ ★

And so, in 2100, the world stood on the threshold of great and undreamed events. There was work to be done before Byron arrived. Important work.

EDITOR'S NOTE: The next chapter of the history tells of Loring and his epochal vacuum tank; of Schwartz, whose work with spent light rays opened vast new vistas of the Universe and who died considering himself a failure; of Hartman, who took up the work of Schwartz and proved light is a power in itself.

(9) Medstein, *op. cit.*, states: "The World Federation won through for two reasons. It was the last desperate hope of Man. And some force greater than man *wanted* it to win through. There are pivot points in history which this force we call God takes into His own hands, because He is not yet ready to have us perish."

OUT OF CONTROL



By Merritt Linn

THE ADVOCATES of guided missiles, who picture any future war as simply a push-button affair, really must modify their ideas, because, in spite of the wonders being accomplished in the world of remotely controlled planes and rockets, certain facts thrust up their recalcitrant heads. One of these is the simple one that most guided missiles fall into either of two categories: pre-set and guided, the former term referring to "V-2" types of rockets which, when once launched, are beyond control. The second term refers to the real trouble-maker.

A radio or radar-guided missile is subject to one cold limitation stemming directly from its wonderful conception. Radio or radar is a two-way proposition, and what one controls another can jam; since the radio and radar spectra are limited, no one can with impunity simply blast an opponent by remote control.

As a result, systems are being worked

out which call for stronger concentration on the artillery-like "pre-set" missiles in preference to "guided" missiles. You may not be able to guide or control the former when once they're launched—but neither can the enemy! In other words, the danger of boomeranging is eliminated.

As for guided missiles which do not depend upon radio or radar, but use heat or infrared or the like, a similar problem of boomeranging exists which cannot be countered save by some radical developments of which no one has an inkling. This seems unlikely so that, while missile development will show marvelous strides in the next few decades, it will not be ultrapowerful, and the familiar weapons of today will still be in use.

Among "guided missiles", with certain limitations, the "airplane" still has one big advantage. Its speed may be limited, its load may be limited—but the enemy can't control it!



THE CLUB HOUSE

By Rog Phillips

I PARKED the car half a block from the place. The address, 1305 West Ingraham Street, was that of a hotel. We entered the lobby. Rick Sneary, who had been there before, made his way across the lobby with us following, and entered the door to a large hall. We were now in the club room of the Los Angeles Science-Fantasy Society.

There were dozens of originals of covers and interior illustrations from magazines decking the walls. One whole side of the room was filled with bookcases, mimeograph machines, and tables piled with assorted papers. In front of this debris and against the other walls were chairs. They were all occupied. Some of the faces were familiar, most of them were of strangers. The meeting had been in progress when we came in, but had come to a halt as old acquaintances and friends rose to greet me. Forrest J. Ackerman, presiding, introduced me to those who didn't know me. He asked me if there was any news I cared to tell about. I said there wasn't anything much except that I was working on a book contract for Shasta Publishers and the book was tentatively scheduled to come out in the spring. The title was tentatively "Frontiers In The Sky".

Chairs were brought for us. We sat down and the meeting took up again. With the business part of the meeting over, the speaker of the evening was introduced. Peggy Benton, a psychologist. Her husband, whom I

met later, is a psychiatrist.

For almost an hour she discussed a theory she has been developing. The theory is an attempt at a master plan of analysis of living processes. She was a good speaker. She would carry her arguments a little way, then pause and permit questions. In that way no one was completely lost at the beginning with no chance to catch up.

After it was over we were invited to a get-together at the home of E. E. Evans, with Peggy and the Ackermans.

This lasted until after one o'clock in the morning. Mari and I were invited to attend a writers' group that met at Evans' every Sunday evening. We were also asked to the Ackermans' on Friday of the next week when Peggy and her husband would discuss her theory further with another group of listeners.

Mrs. Ackerman—Wendy—asked me what I thought of the club. I told her that there was one thing above all that impressed me. No one attempted to dominate the meeting. At the many stiff club meetings I have attended all over the country, the thing that has struck me as being almost universal is that in every group there seems to be one person who is on his feet expounding his views at least half the time.

Wendy said there was one here too who had that tendency. He hadn't been present, fortunately, and when he was at the meeting the others pretty well kept him seated and quiet.

There were many other things that impressed me favorably about LASFS. One is that the younger members were allowed to express their views and were listened to. In so many clubs the old-time members dominate everything. Another was that the after-meeting get-togethers were not at a restaurant where the young fans can't afford to go. To me, the real fans, the ones I'm most interested in, are the teen-age intellectuals who take their thinking seriously; not the older fans with their college degrees and complete collections and their authoritativeness.

There was a young fan named Alvin, for example. He was explaining to Mari recent work on the study of instinct. His view was that there was no such thing as instinct, because they were finding out the factors that produced the marvelous behavior generally classed as instinctive. She finally spiked his argument by saying, "One of these days they'll find out what Life is, in the laboratory. When they do that, you'll stop believing there is such a thing as Life because they'll know what it is." He thought it over, then said, "Touche." Which delighted her no end.

LASFS maintains a lending library of fantasy and sf books for the use of its members. It has a permanent club room where members can drop in at any time and generally find a few other members loafing around. That takes money, but there are enough members to pay the rent. It's the ideal club. That's why I'm telling you about it. There should be more like it.

On a less elaborate scale, it can be done by any group. And a lot of them do do it. A basement clubroom in the home of one of the members is as good as a large room off the lobby of a big hotel. The mimeo machine and

books are a natural part of a club. In these days, when there are so many prozines that few fans can afford all of them, the group can buy all of them and trade off, with the zines going into the club's library afterwards. Coffee and doughnuts are as good as a three-dollar banquet, and cost less than the tip you would be forced to leave for the waitress at the restaurant.

For a dollar a year, you can be an associate member of LASFS, getting their clubzine, *Shangri-LA*, and the benefit of their library. You don't have to live in Los Angeles to be an associate member. You can be one wherever you are. But if you live in or near Los Angeles, you should definitely drop in to one of their meetings, held every Thursday night at eight o'clock. The address: 1305 W. Ingraham St., Los Angeles 17, Calif.

* * *

I'm writing this CLUB HOUSE right after Christmas. A year ago I received a card from a San Diego fan prophesying things for me for 1951. None of them came true, unfortunately, or I would be rich and world-famous by now. But the age-old game of wondering what the new year will have in store for mankind goes on at this time of the year, and I'm wondering what will take place in 1952. Will the first rocket ship reach the Moon? Possible, but not probable.

There is one tendency that appeared in the last part of 1951 that alarms me. That is embodied in the government orders freezing car styles, and stopping color T.V. I have always thought that the greatest threat to the course of civilization is government freezes on models. In R.O.T.C. at college I became acquainted with government processes of standardizing

models and freezing them at some ancient design. I projected that and saw a possible day when automobiles will be the 1940 model Dodge, the 1951 Cadillac, etc., manufactured unchanged year after year; the 1940 refrigerator as a standard design, the G.E. 1949 T.V., etc. On that day will come the death of creative inventing. And creative inventing is the backbone of progress in our times.

Machines that serve us will then take on the aura of tradition. If that is our future, and we were able to step into a time machine and go to the year 2052 A.D., we might find the Model A Ford swarming the highways with the jeep and the 1951 Cadillac, with laws preventing the alteration of so much as the shape of a lock washer.

A thousand years of that could again make change a religious sin, and discovery a heresy. And it would be such an easy trap to fall into. First designs are frozen to preserve materials that would go into change of die forms. After a few years changes become impractical because the old designs do everything just as well and just as efficiently. And after another few years a caution against something new could develop among the customers. If you're an old-timer, you can remember when no one wanted to buy a sedan because it was too risky having all that glass around you. Now it's considered too risky not to have it, to keep you from being thrown out in an accident.

What will be the eventual course of history? We've experimented around with automobiles for half a century. Today we have functional types ranging from the farm tractor with all its attachments for various tasks, to the Chrysler and the Cadillac. Another half-century should about exhaust the field. What then? Right

now I would like to see the Model A Ford revived. Maybe when large areas like Russia and China become industrialized, the Model T Ford will be manufactured by the millions in those areas. Meanwhile, we may be going ahead with a combination auto and helicopter, or a car that can cruise at two-hundred miles an hour, with rudders incorporated into the rear fenders, and retractible side fins for balance on curves. But by the year 2000, we will have arrived at a point where about all that can be done for next year's model is to change the chrome around a little. What then? -

And in medicine, by the year 2000 we should have things pretty much ironed out. Cancer should be licked by then, and all the new drugs should be evaluated.

Will we eventually reach a state of civilization where to change is to become less perfect, so that the only sensible course is to do everything the one best way? Cars and refrigerators and all mechanical devices the same year after year, treatments the same forever, and perhaps even house designs always the same? So that after another twenty centuries origins are lost and people come to think that the perfect designs were revealed by some divine Master Craftsman?

At least it would be better than government freezing of designs at a level of imperfection. Or would it? It makes interesting speculation. And it makes me wonder which would be the better life: to be alive today when manufacturers can come out next year with a better design, or to be alive a thousand years from now when manufacturers will use as a selling point, "For eight centuries nothing better has been discovered!"

Even fanzines might become perfected. I shudder at the thought. The

tendency is already here. Fans take their stuff to the photo-offset printers and have them turned out better than the prozines, so far as printing goes. Maybe the mimeograph will become obsolete. I would hate that. My favorite type of fanzine is one that is mimeographed, on sheets of different colors, with artwork done on stencil, and plenty of good fan humor. Few of them stay that way long. They get a large circulation and decide to go slick. Then they decide to become the best ever, and it takes so much work they fold.

I guess, being born in an imperfect world, I prefer imperfection. It would probably bore me to death to live in a world where the only difference between what I had and what my great grandfather had was the date on the publication of the serial number on the gadget.

* * *

There are quite a few letters this month. One from Steven Davis of Barnesville, Ohio, asks for my autograph. I can't see that it's of any value. Of course, the best way for you to get it, Steve, is to send me a check for ten bucks. I will autograph the back of it and return it through your bank. A cheaper way is to wait until my hard-cover book comes out this spring. Shasta Publishers are going to have five hundred autographed copies for sale. Maybe you should order a copy now to be sure. And wouldn't you rather have my autograph on my first hard-cover book?

Ian T. Macauley writes to tell me my reviews of his zine have brought him many welcome subscriptions to *Cosmag*. He goes on to say that Atlanta, Georgia, has a quite active fan club. He says, "Meetings are held every Thursday night at one of the

members' homes, where a good crowd of Atlanta fans gather. I'm just wondering if any fans in Atlanta that I don't know will see your column and look me up. I wouldn't mind if you stuck my telephone number in—Elgin 4546—since it is not listed in the city directory." That's Ian Macauley, 57 East Park Lane, N.E., Atlanta 5, Ga.

Ken Slater writes from England.

It's a long letter. He corrects me on the price of the *Operation Fantast* handbook. It's fifteen cents, not seventy-five. The seventy-five cents is for membership in *Operation Fantast*, which brings the handbook and four issues of the fanzine. The second thing he wants me to mention is that in the swap deal (any American prozine), the swap can be for more than just *Operation Fantast*. He will swap any "British fantasy or sf book or mag that is currently in print to a USA member of *Operation Fantast* who is swap trading, and we will also do our best to get out-of-print books and mags (including USA items) for members. Credit rates allowed on mags are given in the Handbook." So, the way it goes, if you would like to get this British fanzine, take this copy of *Amazing Stories* after you finish reading it and send it to Ken Slater (Capt. K.F. Slater, that is), 13 Gp. R.P.C., B.A.O.R., 15, c/o G.P.O., England. It would be a good idea to send your letter separately telling him it's on its way.

Marilyn R. Venable sends a letter of a type I don't know how to answer. To put it in a few words, she is searching for fanzines that are "adult in concept and devoted to the publication of good amateur fiction." Heck, Marilyn, few fanzines have *that* wrong with them. I know what you mean, but good amateur fiction is where you find it. Good professional fiction is the same way. And what do

you mean by "adult in concept"? Without humor? Or maybe overly serious? Or perhaps full of philosophy and futuristic politics about one world, with articles on how to write, written by somebody who had a short story published in *Weird*? A good amateur story, for example, isn't amateur. It's professional work. You find some like that occasionally in fanzines. It would have sold to a professional market if its author hadn't been too modest to try it. You also say you would like to contribute to fanzines, Marilyn. Why don't you? Any fan editor I ever heard of would welcome a good short story with open arms. Enter into the fun.

And what makes good fan poetry? The individual taste. In the batch of fanzines this month the best bit of poetry in my opinion was the following limerick by Emili Thompson, 3963 N.E. 9th Ave., Portland 12, Oregon, which appeared on a one sheet fanzine, STAR-LANES No. 3.

A bashful young bachelor from
Mars

Exclaimed as he gazed on the
stars,

"I shall vanish in space,

Without leaving a trace,

To escape from the spinsters of
Mars."

I would say that's pretty good poetry. That "spinsters of Mars" would make a good title for a hair-curling action novel, too. Let's see, we could have a setup where some disease kills men off on Mars. The I.P.P. doesn't dare go within a parsec of Mars because of raids by the spinsters, who strip the ship of all the stalwart males they can get their hands on. The ending would be nice, too. The hag queen gets the villain. A beautiful eighteen-year-old red-headed spinster

gets the hero.

* * *

STAR-LANES: 25c; free to members of United Amateur Press Association. Orma McCormick, 1558 W. Hazelhurst St., Ferndale 20, Mich. There's the one sheet I mentioned above, and No. 4 the fanzine. A letter from Orma accompanies them. She says, "I started this zine to introduce science fiction to a group of amateur journalists. The United Amateur Press Association has over three-hundred members. This contest issue created a great deal of interest, and many correspondents tell me they are reading stf for the first time in their lives, and are enjoying it."

Now for the contest she's talking about. On the sheet announcement she says, "I am offering a book prize for the best four lines on what the writer believes the world may be like in 3000 A.D. A quatrain is preferred, but the entry must be limited to a single futuristic idea. Rhyming, though enjoyable, is not necessary. Entries should be received by August tenth. All entries will be published, and the readers will vote on them." Unfortunately, that's Aug. 10, 1951.

* * *

FANTASY-TIMES: 10c; twice a month; James V. Taurasi, 137-03 32nd Ave., Flushing 54, N. Y. The newszine that brings all the news of pro happenings before it happens—because Mr. Taurasi keeps in constant contact with all the editors, and has correspondents all over the country. He scoops the world with the biggest mystery of the age, the name of the new prozine being edited by Paul Fairman. I have a story in the first issue myself. And I didn't know what the name of the magazine was to be. The prozine is IF, and sells for thirty-five cents. It also announces the publication of a new Ziff-Davis magazine—*Fantastic*. And there's a picture of Dan Barry, who is Flash Gordon's new artist. And much more. To keep up on things you almost have to be a subscriber to F-T. Twelve issues for a dollar, or one for a dime if you'd rather look first.

* * *

EXPLORER: no price listed, "published by and for the International Science-Fiction Correspondence Club." Ed and Jo Noble, Box 49, Girard, Pa. They've had their elections, bringing in Lynn Hickman as the new prex. It's the second full year of publication for EXPLORER; and it's a zine that achieves its purpose perfectly. This issue contains a history of ISFCC written by Paul Ganley, several pages of odds-and-ends, a stf cross word puzzle,

comments on other fanzines, a list of address changes of members, a letter dept., and the final of several author indices, this being for Avon Fantasy Reader.

The ISFCC is quite a large club, and one that any new fan will find worth joining. Besides pen pals, he will get acquainted with many fans who are in practically everything in fandom.

POSTWARP: 15c; a letterzine, Fandom Features, 813 Eastern Ave., Connersville, Indiana. Can't find the name of its editor, but his first name seems to be Ray. This is a revival of the POSTWARP started for NFFF by Art Rapp which Art had to stop publishing when he went into the army. He turned it over to Bob Johnson, who in turn turned it over to Duggie Fisher, who it seems just stopped publishing it and never bothered to return the subscription money to the subscribers. (What do you have to say about this, Duggie?) At any rate, Ray is not responsible for past subscriptions. "However," he says, "if former subscribers will write for POSIE, we will return the favors."

The current issue has letters by Rick Sneary, Lyell Crane, Bill Venable, Eva Firestone, and nine others. It also features book reviews, movie reviews, fanzine reviews, and ads. The nice thing about a letterzine is that it generally develops some running arguments that get more or less hot. Ahh...I can remember the good old days when I engaged in feuds myself. But somehow my "enemies" drifted around to being my friends. Mari says it's my grin.

STF TRADER: 10c, 4/25c; Jack Irwin, Box 3, Tyro, Kansas. An adzine with ad rates \$1.00 per page, 50 a half page, 25 a fourth page. Ads like "For sale, private collection," should make plenty of collectors interested. Are you a new fan who would like to get back-issue prozines? Here's the place to get them. Do you have an attic full of old stf and fantasy magazines? Here's the medium for getting some money out of them.

FAN-FARE: vol. 2, no. 4; 15c; W. Paul Ganley, 119 Ward Rd., N. Tonawanda, N.Y.. This zine features fan fiction. This issue contains "The Soft and Silently Grey," by Al Leverentz, "M'Luwala's Cooling System," by David English, and "Kevin's Characters," by Alice Bullock. There are two poems, one by Orma McCormick, the other by Keran O'Brien. A good rounded fanzine, mimeographed on different colored paper, and with some good fan art drawn on the stencil. Forty-five pages to it, too.

Al Leverentz's story uses an idea I used myself once in a story a couple of years ago, but with a much different twist and well written. Dave English's story has a gruesome ending. Alice Bullock's story is the best of the three in my opinion.

COSMAG STF DIGEST: 25c; Ian T. Macauley, 57 East Park Lane, N.E., Atlanta 5, Georgia. This is really two fanzines in one. The COSMAG part is edited by Ian. The STF DIGEST part is edited by Henry W. Burwell, Jr., 459 Sterling St. N.E., Atlanta 5, Ga. The Digest features reprints of the best that has appeared in all fanzines of the past. Cosmag features all new material. The two are combined into one pocket-size photo-offset zine of around forty pages with a nice cover illustration.

This issue of the Digest, however, seems to have all new material too. "The Immortal Teacup" is part one of the history of British fandom, by Walt Willis. Its first paragraph contains something I want to print here. "Some years ago Rick Sneary sent a questionnaire to various prominent fans. One of his questions was whether it would be a good thing if all fans lived in the same town. With uncommon common sense most of the fans replied that it wouldn't, because if fans could talk with one another instead of writing, some of the most enjoyable of fan activities would tend to die away, such as fan publishing and letter writing." And that's true. A lot of the fanzines are published entirely by one lone fan in his den-and-workshop, and involves long pleasant evenings of letter writing and letter reading.

"The Sorry Saurian," By W. Paul Ganley, illustrated by Hostetler, is a nice bit of nonsense. "The Stf Novel—A Lost Art?" by Lemuel Craig, compares stf novels of the past with the current policy of most publishers of sticking to shorter stories. He believes that a good novel is worth more than a hundred short stories.

The Cosmag half of the zine has one short story, "The Land of the Shadows," by Terry Carr, and illustrated by Peter Ridley, is the type about savages in the land of a lost civilization. Bob Silverburg writes an article about the price gouging of some dealers in back issue magazines. What should be done about fantastic prices is for some group like the NFFF to publish a fair pricelist. "The Ink Spot," is Cosmag's letter department.

WASTEBASKET: no. 3; no price listed, Vernon L. McCain, 146 E. 12th Ave., Eugene, Oregon. Printed. There's a picture of Lee Hoffman on page 83 which should make this issue a must for most fans. She's almost as beautiful as my wife Maril. Unfortunately it's spoiled by Bob.

Tucker being in it too. Lee is the femme that a lot of fans were corresponding with, writing man-to-man letters. When she showed up at the Nolacon and they discovered she was a she, there were some very red faces. She authors a short story, "The Way to a Venusian's Heart", in this issue of Wastebasket. Lee should write for the prozines. She's good! There's really too much to review in the thirty-six pages this issue. As its editor says, it's a patchwork issue. Twelve items on the contents page. And looking through, I see a subscriber to F-T. Twelve items on the contents page. And looking through, I can see it says on page 6 it's a Fapazine, published only for members of the Fantasy Amateur Press Association. "But a letter or postcard requesting it will bring you the next issue (but only the next issue) free."

JOURNAL OF SPACE FLIGHT: "News and Events of the Chicago Rocket Society." Michael Conley, 237 S. Addison St., Bensenville, Illinois. So far this is the ONLY rocket society in the United States that has been brought to my attention that I can endorse as being one fans would get anything worth while out of. It's an active group, holding regular meetings the first Friday of each month at eight P.M. in room 518, Roosevelt College, 440 S. Michigan Blvd. I've met some of its old time members and know from having attended a meeting or two that it's a healthy group. Active membership is five dollars a year. Associate membership is three dollars. Visitors are welcome at the meetings, and if you are interested you can get a copy of their official journal free to see if you like it.

The society is primarily interested in the technical study of rockets, spaceflight, and the composition of the planets. What I have on hand for review illustrates that. There is the November and December issues of the Journal. The November issue has two articles, "Power Sources For Orbiter Rockets," and "Establishment of an Astronautical Library," while the December issue has, "Dirigibility of Rockets," and "An Acceleration-Deceleration Meter Design." The very fact that I never heard of two of the words in those four titles shows how technical they are. But maybe "Orbiter" is a misprint on the cover, because inside on the actual article it's "Orbital." Dirigibility is a real word though. The dictionary says it means directibility or steerability.

With the two issues of the Journal sent for review is Volume III of the "Collected Technical Reports." Those are the articles that appeared in the Journal during 1949, sixty-four pages, a dollar and a quarter. Also available are the first two volumes; the one for 1946-48 for a dollar, and the one for 1948 for a dollar and a quarter. The contents page for volume III contains the titles, "Fission Particles as Rocket

Propellants," "Relativity and Space Travel," "The Design of a Practical Space Ship," "High Energy Chemical Rocket Fuels," and other titles. These reports are invaluable to the serious minded sf writer and student.

SCIENCE-FICTION FIVE-YEARLY: "a quandrual publication"; 25c; editor Lee Hoffman, 101 Wagner St., Savannah, Ga., who is editor of Quandr, a fanzine you can get. This one you can't get because it's only for members of the Fantasy Amateur Press Association. I used to belong to FAPA myself. There's about sixty-five members. They have to write or publish so many pages of fan articles or fiction a year to stay members. Lee wanted me to review this one for the boost it will give that sterling organization. Her letter has an ink drawing of Turtle (from the Pogo comic strip), sitting at a typewriter. And Lee signs herself, "Natural-born science fiction fan, swamp critter, and Pogo enthusiast." Me too. Li'l Abner used to be my favorite, but Pogo tops them all.

Lee dedicates her quintennial publication to Walter A. Willis and Bob Tucker; Walt, because he commented on the limitations of the mimeo for artwork and thus presented the challenge, and Bob, because he said she couldn't equal the four-color synchronization on mimeo of a defunct fanzine, PLUTO, which she had never heard of. Well, she has some perfect four-color synchronized artwork on mimeo in this issue!

Lee is quite an artist as well as fan writer. Glancing through the pages I see some free-hand drawings of fans under the title "Among Fankind." Made me dream up (free mind, so to speak) the term *homo sapzian*, or for FAPA, *homo japan*. Words are funny. Take the word *sap*, meaning dumb. Comes from *sapiens*, meaning *wise*, in Greek or Latin or some such language. Or maybe it isn't so strange. Could be we're so much smarter.

Really priceless is the page of questions titled, "Are you Sane?" You're supposed to answer the questions, then turn to the next page to find your score. (Knowing which I am, I didn't bother to answer the questions and find out.)

BSFF: 5c; Bulletin of the Baltimore Sf Forum, Menasha Brodie, 3315 Pinkney Rd., Baltimore, Maryland. Seems to be quite an active fan group. On November 14th they had a meeting at the Pratt Library, and Dr. Watson, Curator of Astronomy at the Maryland Academy of Sciences, gave a lecture on the planets of the Solar System. Seems the planets are uninhabitable, according to him, which gives Howard Browne's editorial of a couple of months

back some verification.

The Bulletin contains more than just reports of meetings. It has some very good fiction and articles in it. And if you are interested in attending the meetings, get in touch with Allen Newton, 114 E. 25th St., Baltimore, Md.. The next meeting will be March 19, 1952, at Sears Community House, Hartford and North Aves., at eight P.M..

* * *

OUTLANDER: official organ of the Outlander Society, published with "incredible irregularity". Address mail to Rick Sneary, 2962 Santa Ana St., South Gate, California. No price listed. This is No. 8, for October. Con Pederson is the editor this time. The motto of the club is **SOUTH GATE IN FIFTY-EIGHT!** Which means they want the big annual science fiction convention to be held there in 1958, and are plugging for it year after year to make sure.

I married an Outlander. Ordinarily the requirement for being an Outlander is to live near but outside the corporate limits of Los Angeles. Mari lived in Laguna Beach, which made her eligible. Rick and I had a discussion on what that made me in relation to the club. He finally decided that made me an Outlander-in-law or, shortened, an outlaw.

They got hold of some gold paint somewhere, so this issue is in black and gold ink. I suspect that Stan Woolsten did the gold printing on his printing machine down Garden Grove way just north of Santa Ana. The zine itself is mimeographed, filled with just informal stuff, from short-short stories to intellectual ramblings of the various members.

Which about winds things up for this time, and for the year 1951, since I'm writing this the Sunday before New Year. I hope 1952 brings a continuation of my conducting the CLUB HOUSE. It and fandom have become more than just part of my job to me. It has brought me so many friends I couldn't begin to list them. It has brought me a feeling of being worth something, as I get letters from fans who tell me of my reviews bringing them subscribers that make continued publishing of their zines possible, and letters from fans who thank me for introducing them to the finest group of people in the world, you readers. I know hundreds of you in person from meeting you at conventions and the various club meetings I've attended. I hope to meet many more of you in person at the big science fiction convention to be held in Chicago over the Labor Day Holiday. I will definitely be there, and so will my wife Mari. Before then I'll give you all the details of the convention here in the CLUB HOUSE.

ROG PHILLIPS

ERRORS

MAKE PERFECTION!

"**WHAT'S THE matter?**" the scientist asks the musician. "I don't understand you boys. Here science provides you with the last word in electronically-generated tones, pure as crystal. It gives you instruments with which you can take apart any musical note. You can analyze almost anything—and still you stick to the old standard pianos, violins, trumpets. Why don't you use the electronic stuff?"

The musician usually doesn't bother to answer. Music's so personal and so subjective that he feels all the scientific analysis in the world won't help any. As a result the scientist has been forced to answer his own questions. And the answers are interesting:

Any person, musically trained or unable to tell one note from another, can notice the difference. Music from electronic devices definitely sounds different—and mostly not as pleasant. The tone of a

piano, a flute or a violin hasn't changed basically in fifty or a hundred years and it is extremely pleasing. Science analyzes the tone, breaks it down and then duplicates it exactly on an electronic music box of some kind—and yet something's missing.

Only recently has science found out what it is. The answer lies in the *imperfection* of ordinary instruments, whose tone is far from pure! Ordinary instruments deliver a tone which is rich in harmonics and overtones. Science simply cannot duplicate the disorder and disarrangement of natural musical sounds.

While electronic instruments pour from factories and a certain curious segment of the musical world gives them a try, it is extremely doubtful that the future will ever see the replacement of ordinarily constructed musical instruments. Science just ain't got it!

A. T. Kedzie

SAM MERWIN'S

SCIENCE FICTION

BOOKCASE

FANCIES AND GOODNIGHTS by John Collier, Doubleday & Co., New York (\$3.00).

To our way of thinking Mr. Collier's collection of exactly fifty short and short-short stories is the most fascinating piece of fantasy publishing to come off any press since the same publisher gave us Ray Bradbury's *Martian Chronicles* a couple of years ago. In fact, we think it more so.

For Mr. Collier has all of Bradbury's sheer love of the bizarre and matching ingenuity in giving it a macabre twist, plus far greater maturity and a more polished and highly educated approach. And while there is little in the way of space-ships or interplanetary voyaging (what there is, as in the *Devil George and Rosie*, merely locates hell in a distant quadrant of our galaxy), Mr. Collier invades not only his native England but heaven, hades, America, France and other points north, south, east and west with trenchant typewriter and tongue never quite in cheek.

Any effort to select special favorites from the two-and-a-half score tales included in this collection is almost bound to defeat itself. For each story has its own points of strength, its own illuminating instants of unadulterated horror, its own utterly unexpected ironies. Worse, it is extremely unlikely that any two readers would select the same favorites. For the author has the faculty in at least some of his stories

to dig deeply into the untold (except perhaps to a psychiatrist) experiences of all of us. And it is those stories which come closest to the individual that will brand him the most deeply.

However, we did enjoy hugely the insouciant naughtiness of *Possession of Angela Bradshaw*, the above-mentioned *Devil George and Rosie*, the already classic *Green Thoughts* and *Gavin O'Leary*, memoirs of the damndest trained flea ever to attain Hollywood stardom. For the rest you'll have to select your own pets—but be warned in case you are afraid of genies and devils in bottles and, at large, witches, man-eating plants and other gay caprices. Should you be thus afflicted, stay away from Mr. Collier's book. Otherwise, dive right into it; the water is fine even if a trifle sulphurous.

* * *

THE CITY IN THE SEA by Wilson Tucker, Rinehart & Co., Inc., New York (\$2.50).

Mr. Tucker, hitherto better known for his excellent fan publications and his ingenious full-length mysteries, has here turned his undoubted talents to the professional penning of a science-fiction novel. The results, slack, can only be described as mixed. Mr. Tucker has tackled the potentially hilarious problem of a matriarchy-to-come and, we suspect, has voluntarily or other-

wise submitted to some sort of censorship that has thoroughly eviscerated his story.

The plot itself verges on the simple, having to do with an Amazonian army of occupation in a land of spindly males who are easy prey for the Pied Piper of Victor Mature proportions sent out by a neighboring patriarchy on the sunset side of the hill.

Recalling some of the hilarious stories produced by Fletcher Pratt and L. Sprague de Camp upon at least related subjects, we can only wish that Mr. Tucker had loosened his stays and waded in to take full advantage of his basically salubrious plot. But unfortunately, where his words should be hilariously ribald, they come through as mere words. We wish him better luck with his next.

* * *

KINSMEN OF THE DRAGON by Stanley Mullen, Shasta Publishers, Chicago (\$3.50).

Behind a handsome polychromatic Hannes Bok dust jacket lurks a handsome polychromatic adventure-fantasy, also a first full book-length effort in science fiction by an author better known for his distinguished amateur publishing efforts of recent years.

Mullen has borrowed liberally from the classic aces of the field, opening in London with chapters that might have been transposed from Sax Rohmer at his Fu Manchu-iest, moving into a Dennis Wheatley witch hunt and then, via a Merrittesque whirlpool, stumbling into a stirring series of set-tos with magic and the military that stems from the Conan books.

Yet, in some strange manner, all of these highly eclectic elements hang together to form a thoroughly exciting and entertaining tale. It is told in the first person by a somewhat pugnacious

young American in the Jimmy Cagney tradition, and never once lets up in its pressure on the reader. This is probably a good thing, since any pause for reflection would reveal the somewhat rude scaffolding that holds it together. All the same, we liked it.

* * *

THE DEVIL IN VELVET by John Dickson Carr, Harper & Sons, New York (\$3.00).

Throughout his long and distinguished career, Mr. Carr, king of the literate detective and mystery authors (as Erle Stanley Gardner reigns among our less-literate scriveners) has shown a definite fondness for the macabre and fantastic that at times (notably in *The Burning Court*) brought him extremely close to the world of stf.

Now, at long last, he has taken the full plunge, combining magic of the blackest hue with a fresh and complexly logical theory of time-travel and the excitement, suspense and brilliant deduction of a JDC detective novel to come up with a winning combination on all fronts.

We find it interesting that Mr. Carr, after waiting for so long, should choose this time to take what must have looked to him like the riskiest sort of excursion from a tried and prosperous path. It occurs to us that such a decision by such a man may well mean that the long-promised science-fiction boom is actually on its way at last.

It was first whooped up some five years ago, has been talked up incessantly ever since—but to these jaundiced eyes it begins to look as if only just lately, in 1951-52, are important things at last beginning to happen. Most important of these are the continued rise in the circulation of stf magazines—against a downward trend

that has most other specialized type of periodical fiction publishing on the ropes—the emergence of some really excellent science fiction movies from Hollywood (along with the inevitable tripe) and the increasing importance of fantasy in the television picture.

Books, alas, are suffering from a temporary visit to the doldrums, according to one of the leading Manhattan dealers. According to him, most of his purchasers have been or are being drafted, thus have neither time, money nor inclination to buy sf novels. As a direct result, virtually all fantasy publishers have postponed

publications promised long since on the stands. Which in turn makes it difficult to fill a column such as this.

But there is plenty of activity in the general field—a field which is widening all the time as more and more potential readers come under the spell of speculative literature via TV and Hollywood. So we have an idea the book-buying slack will soon be taken up. In short, look for a lot of excitement both here and in the rest of science fiction throughout the balance of 1952. It's coming—and no one can stop it now.

THE END



ONCE IN a great while, the fearful problems that constitute the aftermath of war are offset by a benefit. The research into the phosphorus-compound gases which was made during World War II, has brought forth what may well turn out to be one of mankind's greatest chemical boons.

Plants that kill their own pests! A new systemic insecticide which is used on the inside of the plant.

Fed to the plant by any one of several methods: in spraying the leaves, through irrigation water, or by direct injection into the trunk, these phosphorus compounds become part of the plant system, and insect pests like aphids are poisoned when they suck it. Oddly enough, it differentiates—insects that help the plant are not killed, only those who feed off the

plant. The bees can go right on pollinizing without any danger; the various insects that prey on plant pests also would not be hurt.

A world-wide team of research scientists, including even the Atomic Energy Commission, is now studying and experimenting with the new phosphorus-compound systemics. The University of California's Citrus Experiment Station, at Riverside, is in the process of testing 500 phosphorus compounds. It is believed there that this chemical will prove to be of more value than any other chemical pest control known so far.

Truly, the farmer's most farfetched dream now seems within the realm of attainment, thanks to the chemical researcher.

Walt Crain

ATOMIC ARTILLERY

TOM LYNCH

THE CYLCOTRONS and a host of other "trons", despite the fact that they have been overshadowed in the atomic world by nuclear piles, are still very much in the running. Essentially they are primary research tools designed to take atomic particles apart to see what makes them tick. They hurl electrons, protons and neutrons at the kernels of atoms to observe the shat-

tering effect. In most of the familiar rotary atom-smashers like the cyclotron and the synchrotron, the revolving atomic particles eventually tend to get out of "step" with the electric forces driving them. This is overcome in the newest apparatus being built at Stanford.

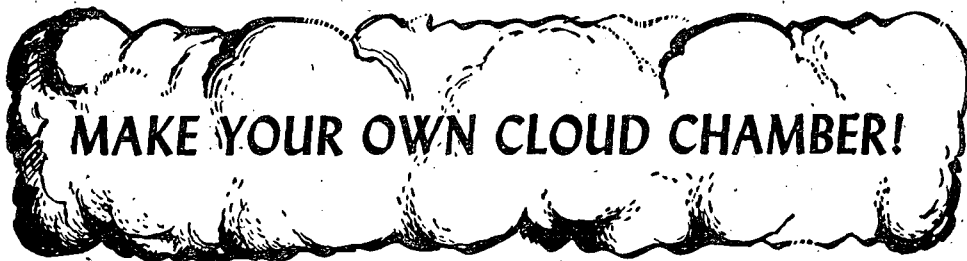
The "linear accelerator" as it's called is a huge vacuum tube more than two hun-

dred feet long. Atomic particles are accelerated along this tube by powerful electromagnetic waves generated by klystron tubes. Enormous speeds are built up, just as if the particles had fallen through an electric field of a *billion* volts! Clearly when such particles strike the nuclei of atoms, something's bound to give!

The out-of-step condition doesn't exist in this atom-smasher and the relativity corrections for power are easy to make by changing the power output of the numerous klystron vacuum tubes. Focusing the stream of particles is simple and they can be projected onto a half-inch square area on a simple film strip.

Scientists feel that so far as truly basic knowledge of the atom's interior goes, very little has been added in the last ten years despite the construction of the atomic bomb and atomic power experimenting. These

events have been the result of knowledge derived before then. The fund is about exhausted and it is time that we learn more basic facts in order to develop more applied techniques. Pure research in atomic physics leans heavily on atom-smashers of the kind just described. From working with this equipment the basic, fundamental knowledge comes—this is science, not engineering. As an example, it must be understood that so far as the nucleus of the atom is concerned, scientists know very little more than they did before the creation of the atomic bomb. Yet it is enormously important that they learn more before the vast fund of data now at hand can be utilized effectively. The news will be full of the results of equipment such as this linear accelerator. Atomic power for usable energy and for rocket flight will thus move one step nearer....



THERE ARE some amateur scientists who have a knack for duplicating the effects of expensive scientific equipment with mere odds and ends, pieces of junk, scrap metal and ingenuity. These tin-can technicians can bring the world of complex physics right into your living room.

Among the most versatile of these is an amateur named Kenneth Swezey whose ability to bring the magic of modern science into anyone's hands is particularly well known. His latest forte is the simple production of a modified Wilson Cloud Chamber, a project which is being worked on because it enables one to see the actual paths of cosmic ray particles and the emanations from such slightly radioactive substances as the material on the dial of luminous watches.

The discoverers of the technique of building this cloud chamber have encouraged anyone to go ahead and try it—it is so easy. But Swezey has put it into simple concrete terms so that even the novice can't fail. For a real thrill, it is recommended that every s-f reader with a touch of curiosity build one!

You take an ordinary glass jar with a metal cover, say a jar four inches in diameter by four inches high—approximately—the dimensions aren't really important. Around the bottom inside wall of the jar you cement, with rubber cement a weather stripping. At the mouth end of the jar you cement a strip of black felt—both strips should be a half inch wide or so. The cover should also have a layer of black felt cemented to its inner surface.

You pour enough alcohol (grain—from the druggist's) to cover the jar bottom to a quarter of an inch. Fasten the cover on tightly, invert the jar and place it on a piece of dry ice. Then shine the light of a powerful flashlight or a lamp projector through the side of the jar and look.

The results are nothing short of amazing! You see the little white trails that denote the path of atomic particles colliding with molecules of air and leaving a condensed vapor trail—in short, the operation of a Wilson Cloud Chamber without the complications. Bring a genuinely radioactive source such as a watch dial near the jar and you observe other trails. These are the paths of gamma rays and high speed electrons.

In themselves, the trails are not spectacular. After all, what is a white line? But interpreted by the human mind and imagination, the actual goings-on are simply breath-taking. To think that with the aid of such a childish trivial apparatus you can probe into the atom! Commercial apparatus used in colleges will not show these things any clearer than your simple home-made cloud chamber.

Every reader of science fiction has a superb imagination—it will run rampant when it goes to work on the white trails of the cloud chamber. No such simple gadget has yet been designed to enable you to peer into space or simulate a rocket flight, but you certainly can go into the microcosmic world of the atom, while the cosmic rays from outer space visit it!

William Karney

THE READER'S FORUM



PUT UP OR SHUT UP!

Dear Howard:

I have been an AMAZING fan since the Shaver Mystery days. I went along with the Shaver Mystery to see if anyone could prove anything for or against. The answer seems to be nil.

I was reading ASTOUNDING when Dianetics came out. I tried it. I know what it is. I used it. It works. It isn't the cure-all Hubbard says it is, but it works. It is a distinct contribution to the science of mental health.

Now you have another new thing. Because you write about it in your editorial, I will hold my peace until something comes out to make it more tangible. However, since you, as the editor of AMAZING, not as a writer, came out of your own free will and made such a statement of facts, I am enclosing a stamped, self-addressed envelope and I want a definite statement from you that to the best of your knowledge the facts stated in your editorial are true. If there is any way of getting a copy of and a translation of this manuscript, please so inform me.

There will probably be many others who will think of some such similar procedure to obtain verification of the statement in your editorial, so it wouldn't be very difficult for you to prepare printed statements in preparation for just such questions as mine.

Let's see, this is the January '52 issue. "The Reluctant Traitor" by Walter Miller, Jr., I liked very much. And I like the Rog Phillips story "No Greater Wisdom". What really takes the cake, though, is that shorty "C'mon-a My Planet". I almost had a heart attack when I read that one! I think that I would have dropped dead, never mind fainting, if such ever happened to me!

That is a beautiful illustration drawn by Otis for "The Reluctant Traitor" on page 8. Shucks, and I thought Finlay was the only one who knew how to draw a picture of a woman! She's downright human looking and desirable, too!

Emory H. Mann
R.F.D. No. 1
West Townsend, Mass.

You know of the howls that went up when AMAZING STORIES presented the Shaver "Mystery" as factual. Readers who ordinarily would have found the material

interesting and entertaining were alienated from the start by the author's pronouncement that it was all gospel.

For us to state flatly that MASTER OF THE UNIVERSE was written centuries in the future would result in the same derision and rejection by many readers who might very well otherwise enjoy reading it. That's why we're going to present it as "fiction"—and trust that the thoughtful reader, struck by the logical and natural course of events portrayed therein, will arrive at his own conclusions on its authenticity.

For us to make the manuscript generally available for examination would be regarded as an effort to prove it factual, thereby doing the very thing we want to avoid—at least at this time.

Do read MASTER OF THE UNIVERSE as it appears and let us know if it strikes you as interesting and informative as fiction—or fact.

—Ed.

THE CAMPBELLS ARE COMING

Dear Ed:

Apropos of Mrs. John R. Campbell, Jr., and the nude babes (AS, Dec. '51, p.152f.), if she likes to swim but finds wearing a bathing suit no fun I urge that she go swimming without one. In that way she will not only have fun herself but will also give pleasure to any males within eyeshot.

Incidentally, if Mrs. Campbell's Mr. is also a fan, that makes at least four John Campbells in the field. There's the celebrated JW Jr., editor of ASF, there's the sf editor of a British book publisher, who flaunts a beautiful auburn beard; there's JS, who teaches at my alma mater, CIT, and sometimes writes sf stories or reviews. Perhaps they ought to use their full names.

Cordially,

L. Sprague de Camp

Author de Camp, by his suggestion in his first paragraph, might succeed in improving the scenery but will get a chill reception from some people named Jantzen!

—Ed.

MR. TAURASI, PLEASE NOTE

Dear Editor:

This is my first and probably my last letter to the Reader's Forum. Yesterday,

over at Special Services, I came upon the November issue of *Amazing Stories*. I howled with glee and grabbed it—the first I've ever seen in the Pacific and this is my second trip out here. I'm up above the 38th parallel and, believe me, I read it from cover to cover. I've read them for the past ten years but out here I'm cut off. Is there any way that I can have them sent out here—if so, please let me know. I have no comments to make except to keep them *Amazing*.

T/Sgt. Herschel R. Gibson
M. P. Co. Hq. Ba. 1st Marine Div.
c/o F. P. O. San Francisco, Calif.

FORGIVE US, TOM...

Dear Mr. Browne:

I've just finished the Jan. '52 issue of *AMAZING STORIES* and, as is my usual custom so as not to miss anything, I finished up by reading "The Observatory". I don't reckon I'll ever forgive you for the profound curiosity you have aroused in me regarding this business about the "Master of the Universe". You know, regardless of what you may say, I'll wonder and ponder about the truth and facts of your article for many a long year. Actually, the import of your article almost has made me forget the exceptionally fine quality of the stories of this issue.

Thomas J. Hallman
563d QM Clo & Gen Sup Dep Co
Fort Lee, Virginia

*We think "Master of the Universe" will prove to be one of the most controversial subjects *Amazing Stories* has ever run. Getting the rights to present it to you was more than a stroke of luck; it was possible because there seems to be no corner of Mother Earth that doesn't have at least one good friend and admirer of "The Aristocrat of Science Fiction."* —Ed.

A JOINER

Dear Mr. Editor:

I have just finished reading the January issue of *AMAZING STORIES*. This is the first copy of any magazine dealing with space travel and such that I have ever read. I must admit that I was quite leery of buying this type of magazine, but having read several of the publications on sale at my PX I thought I would try something different. Believe me, I am amazed—I couldn't begin to praise the magazine enough. I must admit that I possess a very active imagination and this magazine is just what the doctor ordered. Your stories "The Reluctant Traitor" and "The Last Revolution" were positively terrific. I am anxiously awaiting your next month's edition. I was wondering if it would be possible for a newcomer like myself to this wonderful magazine to join a club. I notice you have a special club section. I am in the Air Force at present. Enclosed are

my military and home addresses—I sure would appreciate any help given:

S/Sgt. Carl A. Beck
AF 16 195 700
71st Troop Carrier Squadron
434th Troop Carrier Wing
Atterbury Air Force Base
Columbus, Indiana

Carl A. Beck
5033 North Kilbourn Avenue
Chicago 30, Illinois

BUT THE EARLY WORM GETS CAUGHT!

Dear Mr. Browne:

I would like to say that this January's issue of *AMAZING STORIES* is by far the finest all-around magazine you've ever sold me.

A word, if you please, about the cover; three resounding cheers for Mr. Saunders. With the possible exception of the bat girl it is classic. With no exception it is the finest cover I've ever seen on a science-fiction mag.

The story I liked best was: "No Greater Wisdom", by Rog Phillips. I don't think any Latin can offer Henry serious competition, do you?

By the way, I am looking forward to your presentation of "Master of the Universe" WITH BARE PATIENCE. But tell me, please, Mr. Browne, is it factual? I shall enjoy it no less by knowing.

A word about myself and why you have been assaulted by this aggravated jumble of words: one of my hobbies is astro-navigation. I figure some day real soon that astro-navigators will be in great demand, and so I am doing a little "early-birding" (though I don't know what to do with the worms).

I have seen light years abused in so many stories and I am sure many readers are confused as to the comparative distance of same.

Arthur L. Stinnett
2707 1/2 Huntington Avenue
Newport News, Virginia

The last time this magazine labeled an unusual series "true"—you probably know what we're referring to—half of fandom wanted us shot and the other half wanted us decorated! This time we'll let you tell us. Read the series and keep us posted from time to time on what you think of them. —Ed.

WE BROUGHT HIM IN!

Dear Editor:

I was brought into the realm of science fiction by one of your mags just a few months ago. I have gotten every issue of your mags (both of 'em) since then. I heartily approve your great amount of space for letters, advocating freedom of pen.

A few days ago, I got the Jan. issue of

FA and the Jan. ish of AS. In this pair-off, I liked the AS better. I don't mind, in fact I like, a long novel that gets to the point, and I enjoyed immensely the long novel "The Reluctant Traitor". "The Last Revolution" had quite a moral to it, and I fully appreciated it. "No Greater Wisdom" had me double-confused. "C'mon-a My Planet" was light and humorous, a refreshing interlude from saving universes, etc. "The Impossible Weapon" was quite technical. To understand it I should have read the end first.

A fine array!

By the way, the first sf mag I ever read was the Sept. ish of AS—and "A World He Never Made" was a *very fine* introduction to sf for me!

Keep up the high standards!

Your new faithful,

Reggie Cornblum
296 Greenoaks Drive
Atherton, California

THE MAN WANTS MAGS!

Dear Mr. Browne:

I would like you to publish this letter in your magazine AS.

As good science fiction is fantastically short in Britain (except, of course, for an occasional issue of AS and FA) I would like to ask readers with any sf mags to spare to forward them to yours truly.

Now for the flattery: To give you an idea of how high AS and FA are rated here, they sell at two and a half times the price of TWS and SS, i.e., 2/6 and 1/-, respectively.

And a complaint: Covers! Why not try keeping HNSSLW (Half Naked Sex Starved Looking Women) away and watch sales. They *won't* drop.

Alfred Moodie
70 Eglinton Street
Glasgow, C.5, Scotland

You'll be hearing from American readers, Alfred. ...The "bare-'em-or-ban-'em" argument about cover material has been argued out in these columns until the subject has grown stale. You'll see both kinds—and all of them memorable. —Ed.

ANYBODY WANT A FIGHT?

Dear Howie:

A letter anent your Janish—

The story "The Last Revolution" was one of those that inspire the contented reflection, and longing for adventure and battle that holds my interest in stf. I may appear to get off the point here, but I like, for some unexplainable reason, fighting. Sure, sure; there are combat vets reading this who are thinking, "If you'd spend as much time at the front as I did, Buddy, you'd damn well get your fill of fighting!" That's not what I mean. For instance, a few months in Korea would cure practically anybody of that urge to

do battle. But there are men who *love* to fight. Nothing gives 'em more pleasure than to go on a night patrol with half a dozen pineapples, a tommy-gun and a long knife. To elucidate: Bill Mauldin tells in "Up Front" of a Prussian noble in our infantry who would stroll into a darkened Kraut command post, demand to know of troop movements, etc., in his arrogant Prussian accent, and then kill off everybody in the place with a tommy-gun, and come back to the lines to tell the CO the enemy plans. He was crazy over fighting. Mauldin also tells of a Georgia swamp fighter who went on lone patrols with six or seven grenades hung on his belt by the rings, so he could pluck 'em off like ripe tomatoes. This swamp fighter said that combat was just like swamp fighting—only easier.

I think I'd like to fight almost as well as that. There's something about feeling the contour of an MI breech and the click when it cocks that "sets your blood on fire". It's all the same to feel the weight of a rapier in your hand or the coldness of an unsheathed dagger in your belt.

Well, now I can get back to the subject, before the fen get the idea I'm a cold-blooded killer. I can be cold-blooded, too, when it's my neck in the noose, to coin a phrase. Uh...where was I? Oh, yes.

I was glad to see a fine Saunders painting on the cover: quite a relief from old "Hack" Jones. Also, I see there was another great, GREAT, GREAT Valigursky illo.

Rog Phillips always has been a Hammy Hackhead. His slimy little perpetration last May called "Vampire of the Deep" showed me that. And nothing since then has been worth wasting paper on. However, it has been noised around that his latest novel, "Worlds of If", is pretty good. I have a copy, and intend to find out for myself.

Fawcette, Valigursky and Saunders were the only artists this issue who could do more than the childish scrawls which degrade the other stories.

The letter column was appallingly short. Too short, in fact, to give a decent cross section of opinion.

AMAZING hit an all-time low-crud level with the July issue. It was a helluva letdown right after a great, great, GREAT, GREAT May ish just before it, and now the mag is coming back to my liking. Keep printing yarns like "The Last Revolution" (damn poor title), and you'll stay back. Gad, but I enjoyed that story! (Note to the prudes—it was *not* too sexy!!!!)

Bill Tuning
Santa Barbara
California

Rog Phillips lives only a few miles from you, Bill—and after reading what you say about him, he's likely to drop around with a few grenades on his belt! —Ed.

...ROUND THE WORLD...

To ALL AS and FA Readers!

I am an old reader of FA and AS, but in the last two years I was quite unable to find them in the book shops here in Israel. The trouble is that the very few mags arriving here are bought in a question of minutes and there are none left. Besides, I am in the impossibility of making a subscription, for I cannot receive the necessary dollars required, since there is a very strict control of foreign currency.

So I thought that if somebody is interested in our English daily paper or Israel stamps in return for AS and FA old magazines, we can make the exchange.

Looking forward to the exchange, and thanking you in advance,

Sam Benshaprut
Post Office Box 856
Haifa, Israel

MODEL T SCIENCE FICTION

Dear Mr. Browne:

I recently purchased a copy of the "Science Fiction Galaxy", an anthology of 12 short stories, edited by Groff Conklin. While thumbing through it, I again discovered something that's been bothering me, ever since I began to read SF anthologies. Why is it that 20-year-old stories, so-called classics, are still printed in these collections of modern stories? I respect the fact that these stories were the basis for our modern yarns, but the majority of these tales are so decrepit that they should not be published with tales of a more recent date. Sure, the Model T Ford was the granddaddy of our new cars, but a guy doesn't ride in a T if he's got a '51 Cadillac, does he? I would enjoy hearing from your readers on this topic. Thanks for publishing a great mag.

Richard D. Adler
2135 Watson Avenue
New York 72, New York

You echo our own sentiments, Dick. We think today's writers are turning out work far superior to the so-called classics—although the latter fulfilled the function of showing the way.
—Ed.

FRIENDS FOR VIVIAN

Dear Editor:

This being my first letter to any stf mag, I hope it gets published. I truthfully liked all of your stories in the January issue. My mother has some old stf mags she would like to sell dating back to 1943. I would like to hear from some stf fans in Tennessee or any other state. Please?! Thanks!

Vivian Redsorn
127 Kentucky Avenue
Clinton, Tennessee

JOE SUMS THINGS UP

Dear Howard:

Quite a few months back, when the November issue of AMAZING came out, I was going to write to you and praise the cover. I never got the chance, though. But after seeing the January cover I had to write to you. All I can say is it was wonderful. An sf reader seldom sees a cover like that. But what surprised me most was that it was by Lawrence! One of the best cover artists in the field. Previously your covers seemed to be a drag, and not up to par to the '48 and early '49 covers. It has changed now; now I think that the covers will be far better.

Your interior illustrations are—beyond any doubt—the best drawings in the field. You have all the best artists in the field drawing for you now, and the paper that you now use seems to take the pictures excellently. With Finlay, Lawrence, Valigursky, how can you go wrong?

Now to summarize the stories in the 1951 volume:

The best story for No. 1 was "Never Trust a Martian", by Jarvis; second was Miller's "Secret of the Death Dome". As an all-around issue, it was good, except for the paper, though. The drawings then, too, weren't so well reproduced. No. 2 was "Vanguard of the Doomed"; that just beat out "That a World Might Live". Cover was rather good, and the interiors showed a slight rise. No. 3 was "Beyond the Rings of Saturn" that took first prize in stories, with "Ticket to Venus" second. Cover fair, and inside drawings falling down again. No. 4—half and half. No. 5—terrific! The cover was excellent and the lead story, "Planet of No Return" by L. Chandler, was great. But what hurt me was the cheap paper. No. 6—Phillips' "Who Sows the Wind" was disappointing, and cannot be compared with his "So Shall Ye Reap" in '47. But the story was good, better than average. P. Worth's story was also enjoyable. And the pics once again were rising. No. 7: this issue the change in format went into effect and it was a good thing to see. Semislick paper at last! The cover, though, wasn't so good, but on the other hand "We, the Machine" by G. Vance balanced the issue. No. 8: Jones' yarn was terrible (Wrong Side of Paradise), but this time the cover balanced the mag. No. 9: "A World He Never Made"? To tell the truth, I only read the first few pages, then dropped it. The cover wasn't so good, either, nor was the rest of the issue except for the "Betrayers" by G. Hunter. This issue won the prize for being the worst one of the year. This, though, is not including the interior illustrations, which were excellent. No. 10: "Forty Days Has September" was enjoyable, even with the fact that it was a one-man-saved-the-world story. Cover was also good except that it seemed to be too, too glossy. No. 11: the cover was marvelous! The best of the year,

but with a story like "Beyond the Walls of Space" it made me cry. Yep, it was Buck Rogers, and if this wasn't the most hackneyed space opera I ever read I don't know what was. "Step Out of Your Body, Please", on the other hand, was excellent. Well, I guess you have to have a horrible story once in a while—but jeeze—did you have to use such a beautiful cover to illustrate it? No. 12: This issue the lead story was a universe type ("Somewhere I'll Find You") but what surprised me most was that it was good and interesting. It may have been corny in some parts, but the good parts overlapped the bad ones.

Now for the '52 issues:

No. 1: "The Reluctant Traitor" was excellent. It was good to see a 40,000-word novel for a change. The cover was also good—not the best—but good enough. No. 2: Wilcox RETURNS! Hurrah, hurrah. It was about time. But the sad part was that it was so short a novel. Don, I think, writes better long novels than short. Remember his "Giant of Mogo" in a back issue of AMAZING? Also, "Desser of the Damned". Both, as I remember it, were long novels.

Although Wilcox's work isn't exactly lit-

erature, his characterization is about the best I've seen. Don makes you love the character or hate him. But in "The Iron Men of Venus" he didn't do much characterization, as he usually does. He did some, though, and as usual it was great. I think a lot of fans will agree that Don Wilcox beats about everybody else in characterization.

How about getting a 60,000-word novel from him, Howard? Think you can break your policy for at least one issue?

Since I have mentioned the cover in the early part of my letter I guess that is all I have to say. But, Mr. Browne, if you don't print this letter my feelings will be terribly hurt, because it took some time to type this letter. And you must admit it's long enough.

Joseph Semenovitch

40-14 10th Street

Long Island City 1, N. Y.

You'll be delighted to learn, Joe, that Don Wilcox is at work on a sequel to "Giants of Mogo"—and we've told him to make it just as long as the story warrants. ...Thanks for taking the trouble to write us at such length.

—Ed.

GREEN BALLS OF FIRE!

A STRANGE—but definitely corroborated—phenomenon has been appearing in the night skies of New Mexico and Southern California which has caused residents to wonder whether there is to be a resumption of the "flying saucer" scare. Very clearly, it has been noted that, flying in huge arcs across the sky, are seven huge green spherical balls of fire, which arc over in a tremendous curve and then apparently land Earthwards—but without any sound. They simply vanish.

This phenomenon has been watched by scientific observers as well as by laymen, repeatedly, and suggestions of infinite variety have been made. Most likely the

problem reduces itself to some sort of experimentation with guided missiles.

Many veterans of the last war connect these green balls of fire with a similar phenomenon which appeared over Germany during the great bombing raids and which probably had its roots in anti-aircraft defense methods. Very likely this work has been kept strictly hush-hush since then and now has been extended, along with the V-2, to American developments.

Nevertheless, to the casual observer they look a lot more like poltergeists than anti-aircraft missiles!

Roy Small

TELEVISION IN THE CAN

AT PRESENT, "canned" television programs are simply filmed versions of stage events. Many shows are canned, as are most commercials. The quality of the film recording is certainly nothing to brag about, but what is even more bothersome to the TV station operators is the cost. Film is expensive and, when used once, is useless and must either be filed or destroyed, because very few filmed items are worthy of storage.

Since television images consist of nothing more than electrical impulses, the question arises as to why they can't be preserved on records or photo-electrically on film, or perhaps on wire or tape. Because the television image is measured in several million "bits" per second, it is obvious that recording on records or film is out of the question. But wire and tape is another matter, and manufacturers and research laboratories are working full

blast to devise a system whereby TV programs may be nicely stored on magnetic tape.

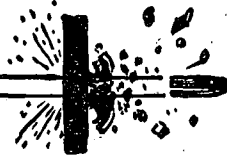
The tremendous band-width of the TV image, of course, has been the drawback up to the present. A TV station uses a band-width of about four million cycles per second. Trying to record such fantastically high variations on slow-moving tape is like comparing a race horse with a turtle. But it also happens to be a fact that, actually, such four million "bits" do not all contain valuable information, and there is a possibility that only a fraction of that number is required for reproducing an adequate image. Working on this hypothesis, technicians think it is only a matter of time before magnetic tape can

be used to store TV images. Economically and otherwise, this will be a tremendous boon to the operators, for the tapes may be used hundreds of times after having their images erased by another magnetic film.

It is also suspected that considerably better quality may be introduced into the picture through this medium. Certainly the present film recordings could improve! It's becoming almost tiresome to repeat the wonders of electronics, but it seems that there is simply no problem too difficult to be solved where electronic apparatus is concerned. The next thing, they'll be running a direct radio relay beam to Heaven—or the other Place!

Jack Winter

SUNDAY PUNCH



PARTIALLY as a result of rocket study and partially as a result of projectile study, a lot is being learned about high-speed projectiles such as common, everyday bullets. The requirements for future warfare have led to the development of armor-piercing projectiles whose power is fantastic. From the military developments have sprung applications to ordinary hunting and target shooting. High-velocity bullets are an eye-opener on the power of explosives.

Ordinary rifles eject a projectile with a speed of about three thousand feet per second. That's fast, and the bullet does a lot of damage. But a super-speed bullet leaves a gun muzzle at velocities between four and five thousand feet per second (remember that sound travels at thirteen hundred feet per second!). It is impossible to compare the damage done by a high-speed bullet with the damage done by an ordinary one.

For example, high-speed bullets have been used in big-game hunting, and elephants and water buffalo and rhinoceroses have been killed with a single bullet! In one experimental operation a bullet whose speed was ten thousand feet per second killed a deer merely by grazing it—the shock was enough to cause death!

High-speed projectiles are simple variations of ordinary ones. Actually the projectile is the same, but it is driven by a super load of powder carried in an oversized cartridge case. The gun barrel, of course, is reinforced. Abrasion and wear are such that relatively few shots may be fired.

The major application of high-speed bullets is not in hunting, nor is it in

military rifles to be used against human beings. For ordinary work the super-speed bullet is not deadly enough! This contradiction is clear when you understand that such a high-speed bullet will go through a man or small ordinary game without inflicting severe injury beyond making a neat hole. An ordinary bullet will tear and rip flesh and thus make a wounded man more of a problem to his own army than one drilled cleanly.

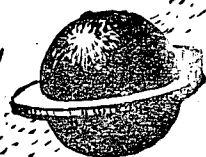
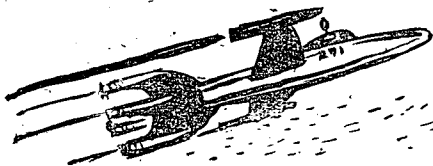
But armor-piercing is another matter. The battle between armor makers and bullet manufacturers never ceases, with the latter having a distinct edge. You can carry around only so much armor plate, but the bullet speeds can be shoved up. American ordnance people are only beginning to appreciate the value of high-speed bullets. In many respects they are more effective than the explosive or shaped charge commonly preferred by our experts for use on armor plate. The high-speed bullet will have most of its energy absorbed by the armor plate in going through it, but the back of the armor plate will be chewed and expanded in an exploded fashion.

Rockets, which permit even higher bullet speeds than rifles or artillery, can punch their way through practically any thicknesses of armor and it is here that most of the high-speed advances have been made. In building for interplanetary rockets, a surprising amount of data emerges on military uses, not the least significant of which concerns armor penetration. Tanks and blockhouses aren't nice places to be when rocket men are on the outside shooting in!

June Lurie

ROUTINE PATROL

BY RALPH COX



AN AMAZING VIGNETTE

ANOTHER dyne—and that was it. We were matched to Bomb D-4. I opened the firing circuits and we were free. Ten meters outside the port I could see the bulky sphere that was D-4 perfectly paralleling us, matched to a centimeter per second's velocity. I'd watch it from now on and correct only occasionally.

"It's all yours, Jack," I said to Sub-lieutenant Frisby. "Give it the once-over."

He locked his face-plate and his voice came over the speaker.

"Right, Hank. First one of the season. Be back pronto."

He stepped into the tiny airlock of the patrol craft and a minute later he appeared to me through the port, riding in a straight line punched by a slight blast from his shoulder rockets. He mounted Bomb D-4 and opened the hatch, into which he disappeared a second later.

We were on routine duty checking the U.N.'s "Bomb umbrella." We'd both had two months on Terra and it had felt good to get back to the Satellite and then on patrol. Twenty-four atomic bombs blanket Earth with an ominous menace. Silently and perpetually they circle in their orbits, a constant reminder to any Terran aggressor nation that destruction complete could be visited from the skies at one word from the U.N. The triggers on the satellite would work, and minutes later, as the Bombs rocketed Earthward—blooey!—the cities of the aggressor would simply vanish. We of the Satellite were part of the U.N. patrol, our duty to check the bombs constantly to see that they were in perfect operating condition.

I glanced out the port and looked wonderingly at the innocent sphere which hovered such a short distance away. Who would imagine at a casual glance that a bubble of aluminum like that would house eight hundred pounds of U-238? It seemed so harmless.

A few minutes later Jack's body appeared from the hatch, and he carelessly closed it and made for our patrol ship. I was surprised at his heedless haste. I was sure he hadn't pulled down the dogs on the hatch cover. I'd have to pull rank on him, I thought humorously. You don't say phrases like "sacred trust", but you think

them.

Jack came into the ship and removed his face-plate. His face was flushed.

"Damn!" he said. "Hank, there's trouble brewing. That thing is as dead as a dodo."

"Dead?" I echoed pointlessly, "What...?"

"The circuits are a mass of junk," he cut in. "Somebody scrambled that baby beyond recognition. You might as well have eight hundred pounds of lead floating around in space for all the power it's got. Some joker went to work on it with a heat beam and there's nothing in the circuits but fused copper and aluminum."

"Brother!" I whistled. "We'd better check D-5 right away."

Jack put through a call to the Satellite but there was no answer. I thought it funny, but Jack figured the circuits must be overloaded.

Ten minutes later we'd matched velocity with Bomb D-5 and this time I went aboard it. It too was a simple mass of metal, every wire in the thing fused beyond any repair short of a complete rebuilding at the Satellite. Something was up!

Immediately we tried to radio the Satellite and again got no answer.

"Jack, this is emergency," I said. "The hell with the patrol. I'll bet twenty unies every single Bomb of the umbrella has been disarmed. This calls for action. Let's raise the Satellite!"

I set the patrol craft on automatic, picking a suitable orbit, and we went.

Jack glanced through the port at the glistening bulk of Earth thirty thousand miles beneath us. He shook his head.

"Hank, I don't like this one bit. Something's radically wrong. And I'll guarantee the Sovs are at the bottom of it."

"You could be right," I agreed. "The U.N. refused them Satellite construction rights only two weeks ago. And they're spoiling for trouble. And as it stands right now nobody is going to plant a Uranium bomb on Moscow or Stalingrad. We know that!"

"Hank?" Jack looked at me questioning-ly. "Are we making sense? We're going back to the Satellite. How do we know the Sovs haven't grabbed it? They must have disarmed the whole lot of Bombs. Surely they've got a rocket at the Satellite.

They wouldn't take a chance on Bomb launchings from it!"

"That makes sense," I agreed. I cut the ship from automatic and put it on manual. "We'll creep up on it tangentially. It's hard to bring a projector or a launcher to bear from that position. You know that from Satellite Defense exercises. If they've grabbed the Satellite, maybe we can pull some sort of a *coup* ourselves."

In twenty minutes the Satellite, like a huge spoked wheel, loomed visibly before us. We were so close to its plane that, as I cut down toward it, it took on the appearance of a line. From the landing hub, though, we could clearly see two craft moored, both long, slim rockets with no markings. We didn't need lessons to know what they were! They were Sovs, if I've ever seen a Sov rocket!

I cut our velocity and we floated free. Certainly radar couldn't have failed to pick us up. And it hadn't.

"Bomb Patrol No. 3." A strange voice came over the speaker. "Report in Lock 2 at once. Emergency condition red!"

There was a condition red, all right, I thought. And how red!

We didn't do anything. The order was repeated. Again we did nothing.

"Come in at once or face insubordination charges," the voice added. That was a joke. We'd face a gun, a shooting gun.

"Hey, Hank," Jack jostled me. "I've got it. The Satellite rockets are jammed too. It must have been sabotaged so the Sovs could board without a fight. Get it?"

"And how. You're right, Jack. All they can do is get one of their rockets in action. Brother, this is where we have fun!"

Even as we talked, we caught a glimpse of figures, space-suited, about the nearer rocket. They weren't prepared for the return of a Patrol ship. They'd assumed we'd continue our rounds of the disabled Bombs before we came back. Well, that was their mistake.

"O.K., Jack, let's take 'em."

I gave her just a few dynes and we started to move toward the rocket, which was already lifting her nose from the Number 2 lock.

Jack sat back of the forty-millimeter launcher. He opened the gun-lock and set a rocket in it gently. He flipped the arming stud, and glued his eye to the optical sight.

"Where, Hank?" Should I put it amidships?"

"Uh-uh," I negated. "Plant one right on the tubes. We want this baby out of action."

He touched the trigger. A barely audible hiss replied. A streak of light lanced toward the enemy rocket. Then bang!—and her stern tubes vanished into crumpled sheet metal. She was out of commission.

Hardly hesitating, Jack did the same thing to the Number 2 rocket, and both of the helpless craft floated like strange metal flowers around the central hub of the Sat-

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elite.

A few ineffectual small-size rockets were launched at us from hastily rigged firing ports at the tangential sides of the Satellite, but they might as well have been firing at a fast-flying bee. They didn't even come near.

Meanwhile Jack had put the transmitter on pulse, and he'd gotten, with this jury rig, a response from the Lunar station. Rockets were on the way.

There was one more Sov rocket, returning from the completion of its Bomb destruction survey, and it almost got us. Jack clipped it: nastily a couple of times with forty-millimeter rockets and it too lay quiet, but not before it had punched us once. We had to wait for the Lunar pickups to get us because our controls were damaged.

By then it was anticlimactic. The Sovs who controlled the Satellite were helpless to take any action. Eight big boys from Luna rotated around the Satellite and accepted the surrender. It went off smoothly, except for a few fanatics, and they were ventilated in a hurry with ordinary booster rifles.

We later learned that the Sovs had opened up a ground campaign fearlessly launched, knowing that the deadly Bombs overhead couldn't damage their cities, but the Lunar boys jury-rigged one and dumped it squarely on Stalingrad. That stopped the incipient holocaust in a hurry! It doesn't pay to play around with the boys who handle the Satellite and the Bombs—the Sovs learned the hard way. They say the U.N. plans a special decoration for us—and we're not complaining. But we're hanging onto the Bomb-check routine—it's not as dull a life as you might think!

MOLD*Can Be Murder*

YOU HARDLY ever hear mention of fungi or molds except in terms of praise, for they are the source of most of the "miracle drugs" of recent years. These strange denizens of the plant world have contributed greatly to human comfort, and biologists assure us that we will have many more uses for them as research goes on. Unfortunately, however, fungi and molds have their less well-known—and less savory—side, too.

Fungi love electronic and electrical machinery—for that matter, all kinds of machinery!

People who live in northern and temperate climates are not often made aware of this, but people who live in semi-tropic, tropic and southern latitudes have a bitter tale to tell. It seems that fungi in moist

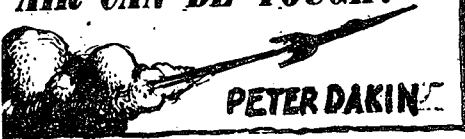
humid atmospheres love to devour insulation, plastics, rubber—in fact anything that smacks of organic material. Only metal acts as a barrier. Now electronic and electrical equipment is full of organic materials such as insulation, condenser fillings, rubber gasketing, and so on. And there is no substitute for these organic materials either, since insulations must be nonmetallic. The result is that wherever radio, TV, industrial electronics or other similar apparatus is used, fungi find a foothold. They like nothing better than to sneak into a radio transmitter or a relay or a TV receiver, chew and devour the insulation, clog the points and, in general, lay waste the equipment.

This trouble is becoming so common, and promises so much difficulty for the future, that special research has gone on to eliminate it. Because fungi and molds can take the form of airborne spores and thus creep through almost any conceivable sort of gasketed barrier, the solution seems to lie solely in the process of hermetically sealing all equipment. In fact, in some cases the air is even pumped out before sealing.

Many electrical and electronic components are literally "canned", that is, sealed in conventional tin cans which can resist the fungoid growths. Another approach is the use of certain chemicals inimical to fungi. With these aids some measure of success has been assured and the destructive fungi brought under at least partial control. Nature has produced antagonists, creatures hostile to Man's dominance of the world, but none is more subtle—and potentially more dangerous—than fungi.

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AIR CAN BE TOUGH!



Rocket fanatics rarely stop to think of conventional and familiar objects and vehicles in which many of their fondest ideas are embodied. A particular example is the familiar concept of acceleration which you always hear mentioned whenever rockets are discussed. Acceleration means the rate of change of velocity, that is, the speed with which the speed is changing. "That baby has an acceleration of ten G's," the experimenter says proudly. Or, "How can they stand the acceleration of ten G's at take-off?" the rocketeer asks.

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gun by the rapidly expanding gases of the burnt powder can reach a speed of two thousand feet per second in a little less than one three-hundredth of a second; That means an acceleration of better than two thousand five hundred G's! Gravity has been multiplied on that projectile by better than a factor of twenty-five hundred. We cannot imagine such linear accelerations. Rocket ships of even the most refined type would never use G's of that magnitude for the simple reason that too much power would be required and, above all, the occupants of the rocket would be smeared in a fine spray over the walls. You could peel them off like tissue paper.

In centrifuges, G's of hundreds of thousand can be obtained, sufficient to tear the metal of the rotating spinner into tiny bits. Such centrifuges, which are used for testing metals, often literally explode under the stresses. Smaller centrifuges are used in biological laboratories to determine what stresses living organisms can stand. Bacteria, molds and fungi stand up very well. Life is tenacious on such a low level.

If the Earth had no atmosphere, launching a rocket by making it the projectile in a gigantic gun would be an ideal way of escaping gravity, and the acceleration could be controlled. But, unfortunately, the column of air which lies along any line of sight outside the atmosphere puts a crimp in that at once. Jules Verne's famous "Trip To The Moon" failed to consider that air column—with artistic license, one supposes, since presumably Verne was a better physicist than that—and of course he had to, lest he have no story. There may be a sequel to this idea, though.

Should men get to the Moon, it is not impossible to imagine a projectile gun used for launching a rocket from the airless surface of our satellite. But such a gun would have to be preset. You can't aim gun barrels hundreds or thousands of feet long!

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PEOPLE WHO are a little shaky on their high-school algebra are often inclined to adopt one of two attitudes when they listen to someone blow about mathematics; either they're contemptuous—"Phooey on the mumbo-jumbo", they say—or they're flabbergasted—"My God, that's wonderful, how is it done?" Both views are unsound. Mathematics applied to science is not mumbo-jumbo, nor is it the doings of super-human beings. It is sim-

ply the application of powerful logical thought, using symbols, and nowhere is its power better demonstrated than in applied science.

The step between learning mathematics and applying it to an actual problem, however, is a big one, and a good mathematician is not necessarily a scientist. A few mathematicians and scientists, like the well-known Karl Menger, Rufus Oldenburger and Fried, all educators of the first rank, have realized this for some time, and in publications and textbooks are attempting to bridge the gap between the two fields.

It is positively marvelous, a first-rate revelation, to see how it is possible with symbols to solve physical problems. For example, such an everyday phenomenon as the action of a spring shock-absorber system on an automobile or an airplane or a rubber-mounted instrument, may be completely analyzed on paper, using certain data from experiment. When the analysis is completed, an exact picture of the behavior of the system has been obtained: this, without any physical tests whatever.

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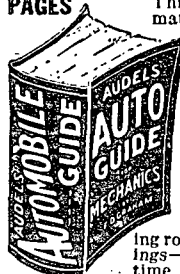
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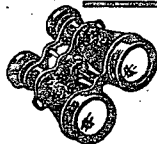
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Jon Barry

COME TO VENUS —AND DIE!

(concluded from page 81)

mournful. "That finishes the valley—and the temple. Too bad. I'd have liked another look at those mummies."

"One look was enough for me," Doyle said. He grinned and began to pull an assortment of objects from his pockets. Rings, heavy bracelets and jeweled necklaces glittered in his hands.

Edith laughed. She, too, began removing ornaments from her clothing.

"Edith and I helped ourselves while you just spent your time examining the mummies," Doyle told Bancroft. "You can have some of this stuff for your collection, if you wish. As for the rest of it...well, it takes money to build a home and set up housekeeping."

"And give a certain engineer a chance to use all the degrees after his name," Edith added.

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